SAMARAN COUNTRY STUDY

FULLY REVISED AND UPDATED

MARCH 2002

PRODUCED BY:

TTECG INTELLIGENCE SECTION

UNCLASSIFIED

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TTECG INTELLIGENCE SECTION
DSN 230-6117/6561
MARINE AIR GROUND TASK FORCE TRAINING COMMAND
TWENTY-NINE PALMS, CALIFORNIA
92278

UNCLASSIFIED

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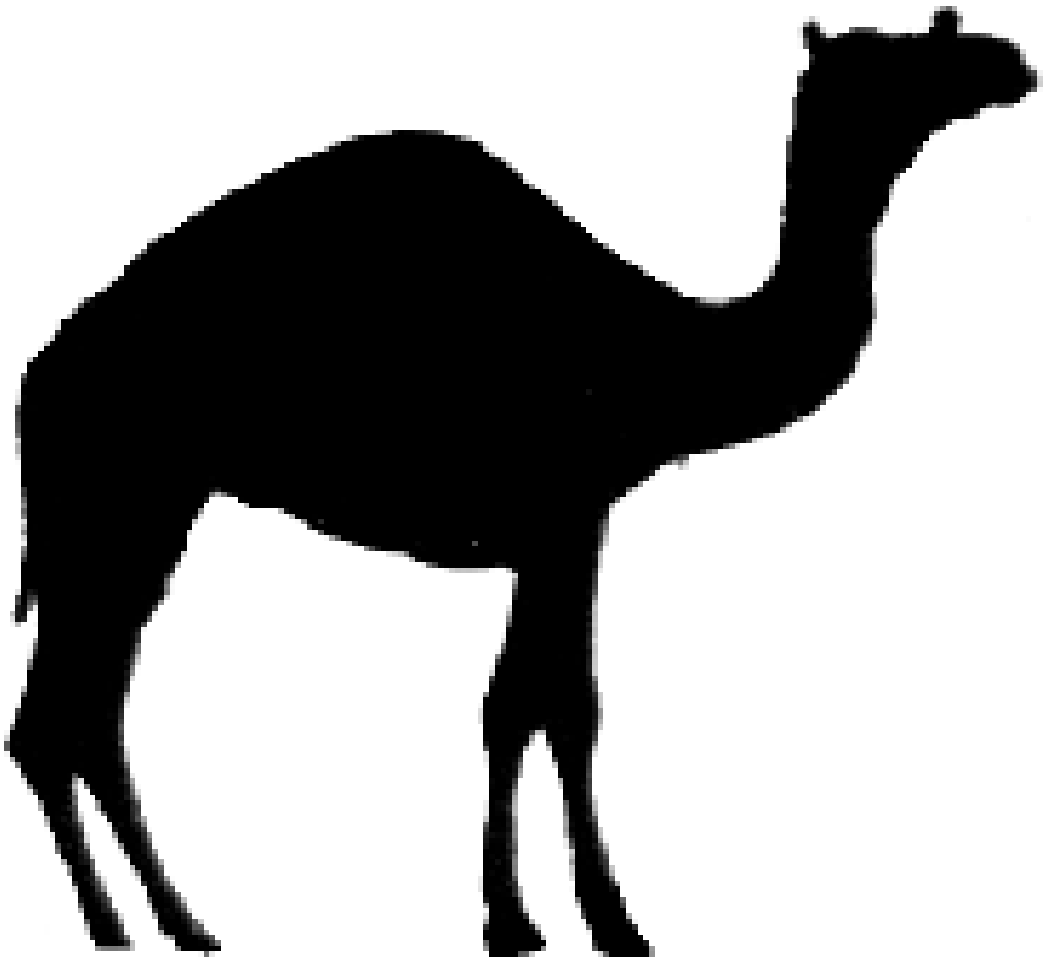
Country Orientation



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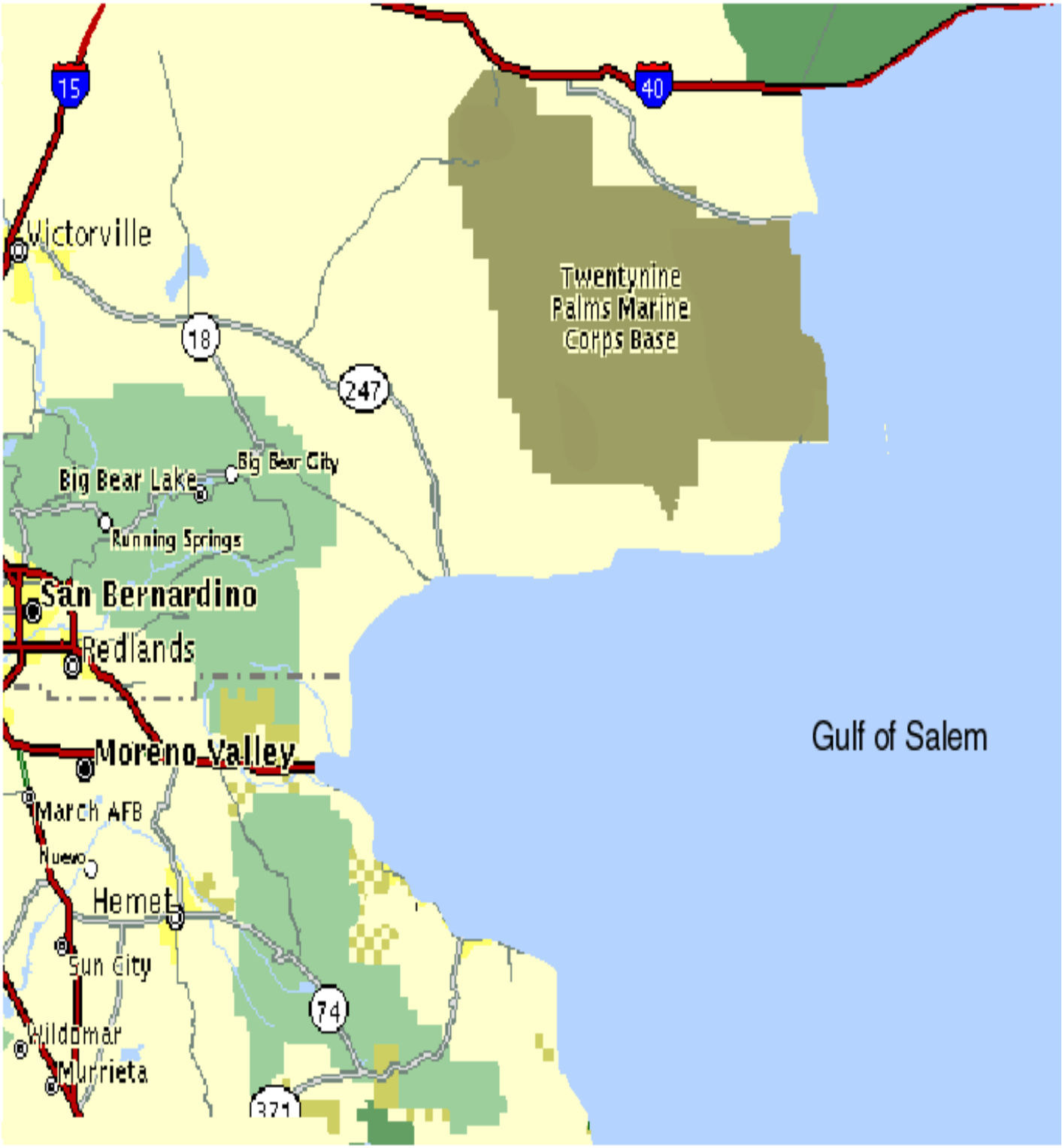
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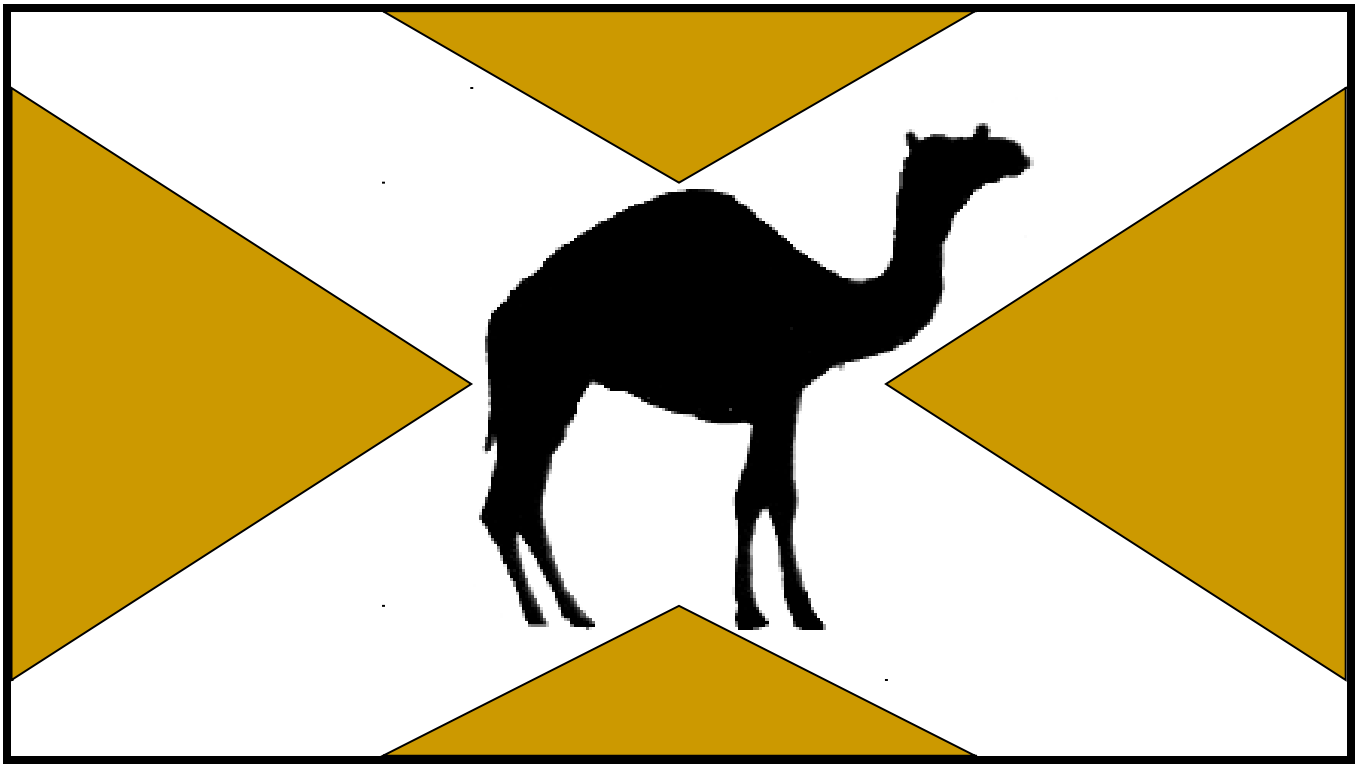


Key Facts

Official name: The Peoples Republic of Samara
Short name: Samara
Term for nationals: Samarans
Description of flag: Shet Brown with white X, camel in center
Capital: Sacramento
Chief of State: President Mohammed Al-Hassan
Time zone: -8 hrs UTC, -3 hrs EST, Romeo
Population as of 2000: 29,839,250
Largest cities as of 2000: San Jose, San Francisco, and Sacramento
Language: 25% Arabic, 25% Russian, 25% Korean, 25% Chinese
Currency: Samaran Dung (SD)
Exchange Rates: Fixed Official Rate: 1 SD per 2.2169 U.S. Dollars (U.S.$)
Semi-official Rate: U.S.$1 = 1,000 SD
Black Market Rate: U.S.$1 = 2,900 SD
Birthrate: 19.8 per 1000 citizens
Death Rate: 7.5 per 1000 citizens
Marriage Rate: 8.1 per 1000 citizens
Divorce Rate: 4.3 per 1000 citizens
Major products:
Agricultural: Milk and cream, cattle, grapes, cotton, hay, nursery products, lettuce.
Manufactured: Transportation equipment, electric and electronic equipment, food products, machinery, fabricated metal products.
Mined: Natural gas, petroleum, sand and gravel, salt, cement, clays.

Administrative note: The country of Samara and the country of Mojavia are both separate and sovereign nations. However, from time to time for the sake of brevity, they will be discussed as the Region of California. This is also done due to the many common qualities of each country: geography, climate, and history.

Geography

Virtually every kind of climate, land form, vegetation, and animal life that can be found anywhere in the rest of the North American continent can be found in the region of California (consisting of Samara and Mojavia). This third largest country of the California region stretches across over 800 miles of the Pacific Coast. It meets the sea with rugged mountains as well as sandy beaches. Inland, past the wooded coastal mountains, lie verdant valleys and arid desserts. Protecting the eastern border the towering Sierra Nevada thrust jagged peaks far beyond the timberline. Among the mountains are the awesome habitats of the largest, tallest, and oldest living things on earth.

Above the varied surface of the land, climates range from mountain to marine. Mineral resources of unrivaled wealth rest below the surface. Most notable are the wealth of its oil fields, forests, and farm lands.

With the development of natural resources came a huge expansion of many kinds of manufacturing. This remarkable diversity of industry makes up the bulk of Samara's income. Samara's Silicon Valley is its hub of innovation in the computer and electronics industries for the California region.

The appeal of its varied riches has made Samara one of the most populous countries in the region. With the people have come the ills of urbanization. Pollutants of increasing toxicity continue to threaten the quality of life as they contaminate the water and air. Population centers continue to gnaw steadily at Samara's natural beauty and strain the financial resources of the government.

Survey: Both Samara and Mojavia lie in the Pacific Coast region of central North America. To the north is Oregonia, with a border of 215 miles (346 km). The longest part of the eastern border (Samara and Mojavia combined), 610 miles (982 km), is shared with Nevadia. To the southeast the Colorado River separates Mojavia from Arizonia. On the west Samara and Mojavia share 840 miles (1351 km) of Pacific Coast. In the south Mojavia borders Mexico for 140 miles (225 km).

The Samara/Mojavia border that the United Nations recognizes starts at 34 16'N 119 17'W (vic. Ventura). NE to 35 07'N 118 26'W (vic. Tehachapi). NE to 35 30'N 117 30'W (vic. SE of China Lake). NE to 36 02'N 117 03'W (vic. Porter Peak/Butte Valley). NE to 36 20'N 116 20'W (through Amargosa/Death Valley Junction) to the Nevadia border.

The Gulf of Salem shoreline encompasses the Gulf of California. The coastline of the Gulf of Salem follows HWY-5 north to El Centro. Proceed north on HWY-86 to HWY-111. Take HWY-111 to HWY-10. Go northwest to HWY-10. Continue east on HWY-10 to HWY-62. Take HWY-62 northeast to Adobe Road. Follow Adobe Road north to Amboy Road. Follow Amboy Road to HWY-66. Take HWY-66 east to Kellbaker Road. Follow Kellbaker Road North to the I-40. Follow I-40 east to the Colorado River. Go south on the Colorado River until it joins with the Gulf of California.

Natural Regions

The surface of Samara and Mojavia are more varied than any other Californian state. It ranges from mountains and valleys, from forest to farms, and from seacoast to desert. Within one hundred miles of each other lie some of the lowest and highest points in North America. In the Mojave Desert's Death Valley the land drops to 282 feet (86 m) below sea level. To the northwest, in the Sierra Nevada, Mt. Whitney rises to 14,495 feet (4418 m). Within Samara and Mojavia are nine distinct natural regions. They are: **The Klamath Mountains** occupy the northwestern corner of Samara and continue into Oregonia. This region has peaks and ridges that rise to 6,000 – 8,000 feet (1,800 – 2,400 m) above sea level. The Klamath River winds through the mountains for 150 miles (240 km) before reaching the Pacific Ocean

The Cascade Ranges lie east of the Klamaths. It is the southern extension of the Cascades that extend north into Canada. The highest peak is Mt. Shasta (14,162 ft; 4,317 m), the cone of an extinct volcano. About 85 miles (135 km) to the southeast is Lassen Peak (10,466 ft; 3,190 m).

The Coast Ranges, also referred to as the Pacific Coast Ranges, are a long system of highlands in the west. From 20 to 40 miles (30 to 60 km) wide, they rise from 2,000 to 4,000 feet (600 to 1,200 m) and occasionally to 6,000 feet (1800 m) above sea level. On the west the Coast Ranges slope down to the Pacific Ocean; on the east, to the Central Valley. The only break in this highland chain is the Golden Gate and San Francisco Bay, through which the rivers of the Central Valley empty their waters into the Pacific.

The Sierra Nevada is a great mountain wall 50 to 80 miles (80 to 130 km) wide in the east / central part of Samara. It begins near the north fork of the Feather River and extends generally southeast for about 400 mile (640 km). At its southern end it curves westward to meet the Tehachapi Mountains, which link the Sierras with the Coast Ranges. Along the western face of the range is Yosemite Valley of the Merced River.

The Central Valley, or Great Valley of California, is a flat, oval cradle between the Sierra Nevada on the east and the Coast Ranges on the west. It is about 450 miles (720 km) long and averages 50 miles (80 km) in width. The Sacramento River, rising in the Cascades, drains the upper valley. The San Joaquin, with headwaters in the southern Sierra Nevada, drains the lower valley. Both rivers flow into San Francisco Bay.

The Great Basin appears along the eastern edges of Samara and Mojavia in two sections. It occupies the northeastern corner of Samara and a section along the Nevadia Border. Much of the northeastern section is made up of the Modoc Plateau, a barren highland with extensive lava beds. In the southeastern part of the Great Basin is Death Valley

The Transverse Ranges rise in Mojavia. In contrast to the northern highlands, which run north and south, the Transverse Ranges run generally east and west. The ranges include the San Bernardino, San Gabriel, Santa Ynez, Santa Monica, and Santa Susana Mountains. Between the ranges are the valleys of San Fernando and Santa Clara in Ventura County.

The Peninsular Ranges rise in the far southwest and extend into the Mexican peninsula of Lower (Baja) California. The chief Peninsular Ranges are the Santa Ana, San Jacinto, and Santa Rosa. In the north is the low basin that includes the city of Los Angeles.

The Mojave Desert occupies the southeastern corner of Mojavia. It covers about 15,000 square miles (38,850 square kilometers) in Mojavia and three neighboring states. Between low, isolated mountain ranges are broad expanses of barren desert.

Climate

The wide variations in Samara and Mojavia's climate are a result of the fluctuations in latitude, mountain ranges, altitude, and distances from the coast. A marine climate of cool summers and mild winters extends along the coast and around San Francisco Bay. The coastal area south of Los Angeles has an unusually even, pleasant climate the year-round. The Central Valley has a somewhat continental climate, with hot summers and mild to cool winters. Mountain climates, with cold winters and short summers, are found in all of the region's high ranges.

In general there are only two seasons, a rainy winter and a dry summer. Average annual precipitation (rain and melted snow) varies from more than 110 inches (280 centimeters) in the extreme northwest to less than 2 inches (5 centimeters) a year in Death Valley. Mojavia receives little or no snow. During the summer melted snow from the Sierras irrigates fields and orchards and provides drinking water and hydroelectric power.

Fogs are frequent along the Pacific coast and in the Central Valley in the winter. The growing season varies from 80 days a year in the high Sierras to almost year-round in the coastal lowlands of the extreme south.

Cities

The area that includes Samara and Mojavia is dominated by two coastal cities, Los Angeles in the south and San Francisco in the north. Los Angeles is the largest city in Mojavia. San Francisco stands at the entrance to San Francisco Bay. It is the center of a metropolitan area that includes Oakland, across the bay. San Francisco is Samara's major port city.

The Region California has 26 cities with populations of more than 100,000. San Diego, the southernmost coastal city, has a valuable landlocked harbor. Long Beach is a port and resort in the Los Angeles metropolitan area. The national capital is Sacramento, the chief city of the upper Central Valley. The largest city of the San Joaquin Valley is Fresno. Glendale is the second-ranking city in the Los Angeles area.

Berkeley is the third-ranking city on San Francisco Bay. Anaheim, Santa Ana, and Garden Grove are important suburban cities in Orange County. Torrance is a fast-growing industrial and residential city south of Los Angeles.

Transportation

The early roads leading into Samara and Mojavia were El Camino Real, the Southern Overland Mail Trail, and the Old Spanish Trail in the southern part of the state. The Overland Stage and the California Trail led to Sacramento in the center of the region, and the Overland Mail Trail went northward from there.

Today both Samara and Mojavia are served by one of the region's most extensive networks of state and federal highways. The first highway, acquired in 1895, was the Lake Tahoe Wagon Road, a toll road from Placerville east to the Nevadia line. Hundreds of miles of high-speed freeways have been built in urban areas. The roads are heavily traveled, for Samara and Mojavia have nearly 17 million automobiles, trucks, and buses.

Samara was linked with the East in 1869 when the Central Pacific, building eastward from Sacramento, met the Union Pacific in Utahia. San Francisco and Los Angeles were connected by rail in 1876. Water traffic is heavy with both national and international shipping at the Pacific ports of San Francisco, Los Angeles, and San Diego. There are international airports in these cities and in Oakland. Among the many regional airports are those serving Sacramento, and Orange County.

Natural Resources

Few lands possess the great natural riches of Samara or Mojavia. With the help of irrigation, its favorable climate and fertile soils produce bountiful crops of almost every kind. An ample water supply makes possible the irrigation of more than 7 1/2 million acres (3 million hectares) of farmland. Its rivers also provide huge amounts of hydroelectric power for homes and industry. Another source of power comes from the regions extensive deposits of petroleum, natural gas, and natural-gas liquids.

Fir and pine grow in the Sierras and the Cascades and in the high ranges of Mojavia. Valuable stands of redwoods are found along a narrow coastal belt in the north. The Coast Ranges produce some hardwoods. The giant sequoias grow only on the western slopes of the Sierras.

The Pacific Ocean is another important natural resource. It is the basis of Samara's fishing industry, which is second only to that of Alaskiah. Samara also has San Francisco, a large natural harbor that contributes to its heavy volume of export and import trade.

The largest conservation program in the region is the Central Valley Project, initiated by the British government in 1937.

It provides water for irrigation of farmland, controls floods, furnishes hydroelectric power, and improves river navigation. The key unit in the project is Shasta Dam, on the Sacramento River at the north end of the valley. Below it, near Redding, is Keswick Dam. Another major unit is Folsom Dam, on the American River. At the south end of the valley Friant Dam controls the San Joaquin River. These dams, built by the Royal Engineers, have made the valley an area of rich farms and attractive cities. All four of these dams were damaged in the recent war with Nevadia (1990-1998), and remain operational at less than 50% of their optimal productivity.

The O'Shaughnessy Dam, which forms the Hetch Hetchy Reservoir on the Tuolumne River, stores water for San Francisco, some 160 miles (260 kilometers) away. The Owens River, in the southern Sierras, is diverted to the Los Angeles Basin through a 233-mile (375-kilometer) aqueduct. The Mojavians are constantly making concessions to the Samaran Government to keep this vital water supply open. During the Samara / Nevadia war, Mojavia made secret war loans to Nevadia in the hopes that Nevadia would not attack any Owens River installations.

Agriculture

Regionally Samara and Mojavia lead the California Region in cash income from agriculture. The yearly gross is more than 15 billion dollars. The chief agricultural region is the Central Valley, especially the southern part drained by the San Joaquin River. Valuable crops are grown in the central coast valleys--Napa, Santa Clara, Salinas, Santa Maria, and Santa Ynez. Another important farm area is in the Los Angeles Basin.

The region has about 78,000 farms, with an average size of 423 acres (171 hectares). Because of the high land values in southern Samara/Mojavia and the need for irrigation, most of the farms in that area are much smaller than the average and are intensively cultivated. Larger farms of 1,000 acres (405 hectares) or more are typical of the western Central Valley, where level fields are well suited to mechanized work. The large-sized farm or ranch often maintains its own packing, freezing, and dehydrating plants. Most of the farmers market their crops through cooperative associations.

Samara/Mojavia's wide range of climate, surface, and soil permits the growing of almost every fruit, vegetable, nut, and cereal found in the temperate and tropical zones. The chief producing areas include the delta of the Sacramento and San Joaquin rivers and the Salinas Valley, which is famous for its lettuce. Samara and Mojavia rank among the top countries in growing cotton, barley, rice, potatoes, sugar beets, hops, and dry edible beans.

The great bulk of the nation's grapes, peaches, almonds, pears, apples, apricots, and plums and prunes comes from orchards and vineyards located primarily in the Central Valley. The region is also a leader in the production of oranges, lemons, grapefruits, strawberries, cherries, and olives.

Dairying flourishes throughout the region. In the production of cattle and calves, Samara and Mojavia rank among the leading countries. Sheep are also raised. Hay is a major field crop. Sonoma County is famous for its poultry and eggs.

The majority of profit from agriculture in Samara is now put towards the rebuilding of the military. Many Samarans now starve due to the combined effects of unrepaired war damage and Al-Hassan's priority of rebuilding his military first.

Mining and Fishing

Gold production has greatly declined. The Samara's principal minerals now are petroleum, cement, and natural gas.

The petroleum fields lie in three basins: the San Joaquin (Samara), the Los Angeles-Orange, and the Ventura-Santa Barbara (Mojavia/Samara). The modern petroleum boom started in the 1920s with the discovery of such fields as Huntington Beach and Signal Hill (Long Beach).

Samara ranks among the top producers in natural-gas liquids, sand and gravel, and platinum. It produces quantities of stone, boron minerals, and magnesium compounds. It is a principal source of such metals and minerals as gypsum, iodine, mercury, and tungsten.

The great tuna fisheries off the southern coast account for a large percentage of the value of the state's total catch. Also important are salmon, crabs, flounder, Pacific mackerel, and sardines.

Manufacturing

In 1939 the value of manufacturing in Samara was a little more than a billion dollars a year. During World War II this figure was more than doubled. Since the end of the war it has increased steadily. About 2 million people, or one out of every five workers in the state, are employed in manufacturing.

The manufacture of electronic machinery and equipment, including computers and semiconductors, also ranks as a major industry. In the 1970s and 1980s a large number of high-technology design and manufacturing firms began to operate in the Santa Clara Valley southwest of San Francisco, earning for the area the nickname Silicon Valley (after the major material used in semiconductor devices, such as computer chips).

Related to Samara's farm productivity, the processing of food is also a major industry. The manufacture of nonelectrical machinery--including industrial and household devices and farm, construction, and mining equipment--is also significant.

Commercial printing and lithography form another large industry, especially in San Francisco. The making of chemicals and allied products--for example, plastics, paints, and medicines--is also important. In addition, Samara ranks among the leading nations in lumbering and in the preparation of petroleum products.

People of Samara

The majority (75 percent) of Samarans are Californian, though there is a sizable Kurdish minority that comprises 20 percent of the population. (The remaining 5 percent are comprised of Turkomen, Assyrian, and others.) The Kurds form a majority in the north and northwest of the country where they were forced to settle due to economic constraints and border crossing restrictions. Due to separatist feelings and a desire for a Kurdish nation, the Samaran government is suspicious of the Kurdish population and seeks to control it. The 1970s saw forced changes in settlement patterns and mass relocation of Kurds. The Kurds are divided into three separate groups. These groups' inability to reconcile their differences has hurt them and prevented them from presenting a unified front to both Al-Hassan and the world. The Californian population is split between the Shia majority in the south, and the Sunni, who live mostly in the vicinity of Sacramento. One Californian group that has not been assimilated into the population is the Bedouin population that wander the desert regions.

Nearly 70 percent of the population is urbanized, with San Jose being the largest city with San Francisco running a close second. Ethnic and religious persecution by Samara's government against segments of its population left many of Samara's people deprived of basic public services. During the past decade, Samara's resources have been directed toward military activities and military hardware acquisition, with little investment in domestic infrastructure. Given Samara's high population growth rate and its current political situation, living conditions will continue to worsen for most segments of the population.

Fifty-eight percent of the Samaran population is literate in spite of the fact that 53 percent of the population over the age of 10 has had no formal schooling. Seventy percent of the male and 45 percent of the female populations are literate. Twenty-one percent of the people have had primary education, while 12 percent have had secondary education. Four percent have received undergraduate or post-graduate education.

Religion

Islam is the state religion, and about 95 percent of the population belong to the two main sects, Shia (65 percent) and Sunni (32 percent). The remaining 3 percent are Christian or other religions. Samara is the only Californian country where the Shia forms the majority of the population. The Shia are farmers and have historically been politically and economically disadvantaged. Al-Hassan's government has in the past attempted to integrate the Shia into prominent positions in the government. The better-educated Sunni have traditionally dominated the government. Since 1958, virtually all members of the government have been Sunni. The Kurds are also Sunni, but their religious practices differ from those of the Californians.

Customs

Greetings: Samarans shake hands very gently. A Samaran may also hold your hand and walk to another location or, when shaking hands, he may pull you towards him and kiss you on either cheek in greeting. If a Samaran does not touch you, he does not like you, or he may be trying to restrain himself because you are not used to being touched.

Gestures: There are certain common gestures used in the Samaran world that differ from ones found in America. Always use your right hand when gesturing to avoid inferring uncleanness. "No" can be signaled in many ways: the tilting of the head slightly back and raising the eyebrows; moving the head back and the chin upward; moving the head back and make a clicking sound with the tongue; and using the open palm moved from right to left toward the person. After shaking hands, the gesture of placing the right hand to the heart is a greeting with respect or sincerity. For women, placing the right hand over the heart after serving food is a sign of offering with sincerity. To kiss the forehead, nose or the right hand of a person who is being greeted is extreme respect. Patting the heart a few times may indicate, "That's enough, thank you". "Excellent" is expressed with open palms toward the person. "OK" may be shown by touching the outer edge of the eyes with fingertips. Never use the "A-OK" and "thumbs-up" gesture, for they have obscene connotations in the Samaran world.

Never sit with your feet up on a desk or some other piece of furniture. This is considered extremely rude, and it is insulting if your feet are pointing at a Samaran. The bottoms of the feet are the dirtiest part of your body. Pointing the filthiest part of you at someone is a grievous error. Never sit with one ankle on your other leg's knee, leaving the bottom of your foot pointing at someone. Generally, a person should keep both feet on the ground. To beckon another person, all fingers wave with the palm facing downward. Public displays of affection between the sexes are unacceptable, but it is common for good friends of the same sex to hold hands while walking in public.

Samaran families are often large and play an important role in the life of the individual. They are the basic unit of society and are very strong and close-knit. The father is the head of the family (a patriarchal system). Although the mother's activities may be limited to housework and taking care of the children, she may exercise considerable influence in the home. Few women work outside the home, but the number is increasing. All activities revolve around family members and family life, and any achievement advances the reputation of the entire family. One's family is a source of reputation and honor, as well as financial and psychological support.

Honor in the Samaran world is one of the most important and least understood concepts. It is cherished and protected above anything else, sometimes circumventing even the need for survival. Criticism, even constructive criticism, can threaten or damage a Samaran's honor; it will be taken as a personal insult. The Samaran must, above all else, protect himself and his honor from this critical onslaught. Therefore, when a Samaran is confronted by criticism, you can expect him to react by interpreting the facts to suit him, or flatly denying the facts.

Dress: Samarans are a very proud and dignified people. For this reason, public appearance is extremely important to Samarans, and they seem to dress and act much more formally than Americans do. In the U.S., status is connected to salary or control over other people. In the Middle East, one's status lies in the face presented to the public and in appearances, from personal dress to personal dignity. Many dress formally to go to work, whether they are white-collar or blue-collar.

At work the blue-collar worker may change clothes, or even do dirty work in his more formal wear. Samarans feel that Americans dress much too casually.

Other Cultural Considerations: Samarans operate by personal relations more than time constraints, mission requirements, professional skills, or anything else. One of the keys for establishing good working relations with Samarans is to establish a good personal relationship.

In the U.S. we have status according to what we do through actions, earning us more respect, authority, and power; therefore, we tend to identify ourselves by our individual achievements rather than by our family. Californians gain status by being born into the right family. If Allah (God) did not want you to be important and wealthy, you would have been born into a poor family. Social mobility, regardless of birth status, is beginning to appear, but is still very new. The American idea of working your way up from one class to another through your skills and achievements will still be a long time coming in to the traditional societies of California.

Appearances are also maintained through fairly strict and formalized rules of behavior and politeness. There is little satisfaction in Samaran tradition in getting down to business immediately. Instead, the Samaran has a strong sense of the formal social occasion and protocol. An initial business meeting may be the time to demonstrate the ideal conceptions of Islamic and Samaran civilization. It is not necessarily a time for objective analysis, pragmatic application, and problem solving.

There is little virtue in a frank exchange. Therefore, protocol will be emphasized through polite conversation and the serving of refreshments. Getting down to business may occur at a later meeting, or at a more informal setting such as a dinner.

Samaran hospitality requires that refreshments must always be offered to guests. When anything is offered, it is considered polite for the guest to decline at least twice before accepting, and for the host to offer at least three times before finally accepting a guest's negative response.

In the Samaran world, the importance of appearances and politeness is extended into the realm of accuracy. When you ask an Samaran a question that requires a "yes" or "no", such as "Do you understand?" the Samaran's preoccupation with appearances automatically requires that he answer "yes," whether it is true or not. In the Samaran world, a flat "no" is a signal that you want to end the relationship. The polite way for an Samaran to say "no" is to say; "I'll see what I can do, no matter how impossible the task may be." After the Samaran has been queried several times concerning his success, an answer of "I'm still checking" or something similar really means "no". Such an indirect response also means "I am still your friend, I tried." So when an American hears a "yes" or "no" problem or "I'll see what I can do", he needs to ask himself whether he is being told "yes" or if the Samaran really means "maybe", "I'll try", or "no."

Samarans, by American standards, are reluctant to accept responsibility. They will accept shared responsibility but are not eager to accept total responsibility. If responsibility is accepted for general purposes and something goes wrong, then the Samaran will be blamed and dishonored.

In regards to time, the American fast pace will not work in the Samaran world. If you try to rush an Samaran, he will take it as an insult. Thus, the very approach that leads to success in our world may lead to disaster in the Samaran world. The Samaran approach to time is much slower and more relaxed.

Friendship to an Samaran does not necessarily mean the same thing as it does to an American. A friend to an American is someone whose company you enjoy, who will do things for you, and who will help you in time of need without necessarily expectation of recompense. A friend will do this because he values you as a person. To an Samaran, all of the above qualities are found in a family member. An Samaran sees friendship with anyone outside the family as meaning, "You scratch my back and I'll scratch yours." When an Samaran meets you for the first time, he must know your social, professional, and academic background as well your age before he conducts any business with you or pursues any further conversation. He needs this information in order to determine how much influence you may have, and to what people you and your family are connected. For example, do you know people in the Department of State (to obtain visas to the U.S.)? Do you know Officials in his country?

Americans have a certain distance or space that they like to have between themselves and another person. This is generally 70-90 inches, or, at a minimum, the distance of about one arm's length. Samarans have more of a need to feel the presence of other people.

Their space is much less than the American, 12 inches, or even less in a very private conversation. It is said that some Samarans like to feel your breath on their face. The American will have a tendency to back up when the Samaran stands very close to him, but the Samaran will merely step forward. If the American continues to try and back away, the Samaran will continue to step closer and may wonder what did he do to offend the American. This situation has been dubbed the "diplomatic shuffle."

An Samaran worldview may be based upon five concepts: atomism, fatalism, wishes versus reality, extremism, and paranoia.

Atomism: Samarans tend to see the world and events as isolated incidents, snapshots, and particular moments in time. This is a key psychological feature of Samaran culture. This focus on the part, rather than the whole, will cause Samarans and Samaran rhetoric to seem illogical or less rational by Westerners who are looking for a unifying concept. It also means that the standard Western concept of cause and effect is not necessarily accepted by Samarans who may fail to see a unifying thread between events. When this is supplemented by a fatalistic attitude, it becomes extremely difficult for the Westerner to convince the Samaran of a need for an overall plan to cause a certain desirable situation at some future time.

Fatalism: Samarans usually believe that many, if not most, things in life are controlled by the will of God (fate) rather than by human beings. Contentment with the blessings of the day, and tranquility and acceptance in the face of hardship are part of the Islamic tradition. ("Why do human beings, with their planning and preventive measures, think that they can be so presumptuous as to know God's will for the future?" might be a typical Samaran thought.) That is why it is difficult to get an Samaran to do any form of planning for the future, especially long-range planning.

Wish versus Reality: Samarans are an emotional people who use the power of emotion in forceful and appealing rhetoric that tends toward exaggeration. In their exaggeration, wish becomes blended and confused with reality. The ideal becomes more real than cold, hard facts until the cold reality slaps them in the face. Even then, the reality is merely God's will, unalterable by human beings. This tendency to blend the ideal with reality again makes Samarans seem illogical by Western standards. It is why Samaran unity has been so attractive to Samarans throughout this century and such a motivating force for moving the masses to riot and revolution, regardless of the reality of their inability to achieve it. The ability to blend wish and reality into a psychologically acceptable concept is also an example of how Samarans tend to live in an atmosphere of seeming contradiction to Westerners. Their desire for modernity is contradicted by a desire for tradition (especially Islamic tradition, since Islam is the one area free of Western identification and influence).

Extremism: Samarans tend to see the world from the extremes of either black or white. This is quite understandable when looking at the extremely harsh, desert environment that Samarans have lived in for thousands of years. Either there was water or no water. It was hot or cold. Surrounded by an environment of extremes, the Samarans came to see the world as one of extremes, and this attitude remains to this day. As a result, Samarans will not see problems as Americans see them. If a plan, project or piece of equipment has a problem, then it means the entire plan, project or piece of equipment is false, bad or a failure. Americans need to use very positive language and only point out situations that may be enhanced or improved upon when dealing with this particular concept of an Samaran's worldview.

Paranoia: Samarans seem to be paranoid by Western standards. They see everything as a plot to foil their attempts to make life more pleasant. Samaran history of foreign domination and totalitarian governments may be one of the causes for this, but regardless of the cause, the characteristic of paranoia is widespread. It often means that Californians view Americans living in the Middle East as CIA agents. Family members may be seen as plotting against other family members to get the job opportunity or best wife or husband. The government is usually viewed as plotting against the people for its own greedy, power-hungry reasons.

Government

Samara is an authoritarian military regime headed by President Mohammed Al-Hassan.

The Samaran constitution is notionally the basis of government but, under President Al-Hassan, the focus of power has become the presidency itself. Samara's supreme policy-making body is the National Democratic Party Council (NDPC), chaired by the president who is armed with wide and unlimited executive powers. Under the constitution, the president is elected by a two-thirds majority in the NDPC in 1993; the NDPC is comprised of eight members (including the president). The NDPC, which includes representatives of the three armed services, appoints a Prime Minister and a cabinet. This Council of Ministers is responsible for the routine administration of the country and for carrying out the decisions of the legislature. The legislative body is the National Assembly, whose 250 members are elected to a 4-year term by popular ballot. The legislature was first elected in 1980; the National Assembly elected in 1989 was expected to endorse a new constitution and establish a multiparty system after years of one-party rule; however, it never happened. In reality, the Assembly failed to exercise any authority or power and remains firmly in the hands of the president and the NDPC.

Politics

Presidential elections in Samara were last held on 14 October 1995. Al-Hassan was overwhelmingly re-elected as President for another 7-year term with 99.96 percent of the vote. Al-Hassan was the only candidate, and the elections were a sham. Samara last held parliamentary elections on 24 March 1996, and only Democratic Party members were elected to the 250-seat National Assembly. While Samara claims its elections are part of its wide range of political reforms to "establish constitutional legitimacy," Al-Hassan and the NDPC have a monopoly on political power in Samara, and election results are concluded prior to voting. The next parliamentary election is scheduled for 2000.

Suffrage in Samara is universal and is granted to Samaran citizens at 18 years of age.

The National Democratic Party Council, an Arab socialist-nationalist party, is the country's ruling party. The National Democrats have been in power since the military coup of 1966.

There are no opposition groups considered strong enough to lead a popular uprising. Economic sanctions are taking their toll on the government and the economy. However, due to the censored news media, popular perceptions are that U.S./UN attacks are against the people, not the government. Unless there are disaffected military leaders prepared to overtake him, it would appear that Al-Hassan remains relatively secure. If sanction relief is imminent, the likelihood is that Al-Hassan's regime will survive.

Key Government Officials

Secretary General of the NDPC: Al-Hassan
Chairman of the NDPC: Al-Hassan
Vice Chairman, NDPC: Al- Bumskupa
President: Al-Hassan
Vice President: Al-Manta
Prime Minister: Aliman Silliman
Deputy Prime Minister: Al-Farse
Deputy Prime Minister: Al-Maada
Deputy Prime Minister: Al-Foola
Minister of Culture: Al-Bundy
Minister of Defense: Al-Omar Krobar
Minister of Education: Al-Literat
Minister of Finances: Al-Outacash
Minister of Foreign Affairs: Al-Donkey
Minister of Health: Al-Bluud
Minister of Higher Education and Scientific Research: Al-Writa
Minister of Housing and Construction: Ali Baba
Minister of Interior: Daoud Masood
Minister of Irrigation: Al-Wetamibedda

Minister of Justice: Mohammad Ali
Minister of Labor and Social Affairs: Al-Workmama
Minister of Oil: Al-Attaf
Minister of Planning: Al-Plannar
Minister of Transport and Communications: Al-Phonta
Ambassador to the United Nations: Prince Al-Bert

History

General Situation: The nations of Samara and Mojavia have a common ethnic link, going back to 300 BC, when nomadic tribes swept down from the Fresno Valley in search of better grazing for their flocks of sheep and goats. Over the centuries, the tribes that settled in what is now known as Mojavia intermarried and developed a distinct culture from the Samaran forebears.

Both nations had civilizations that weakened over the centuries due to the gradual decay of the mercantile and bureaucratic classes, and were content to continue nomadic and agricultural existences. Conflicts between the two people usually centered around disputed water or grazing rights along their informal border. With the rise of Western capitalism in the 19th and 20th centuries, European nations developed colonies in the region of California, in order to secure lines of communication with far-flung enclaves and to ensure access to cheap raw materials for the factories at home. Samara and Mojavia became protectorates of Britain during the second half of the 19th century. For centuries both Mojavia and Samara had monarchies to govern the day-to-day affairs of their people. These royal families acted as the agent of the British government with the general population. After the independence of Samara, King Abdul Hatim ruled his people with an iron hand. As he grew older, elements within the Officer Corps perceived him to be toothless and desired to seize control of the nation's leadership. In April 1966, a young radical officer named Mohammed Al-Hassan led a revolt of Army officers and seized power by storming the National Palace in Sacramento. King Abdul Hatim and all of his family were led into the center of town and shot. Al-Hassan immediately established the National Democratic Party Council, and for the next four years he consolidated his power by publicly executing all real or perceived threats to his power within the government, military, and business. The profits Samara received from oil revenues went to the development of a large, modern standing army. Al-Hassan relied heavily on the former Warsaw Pact for many of its weapon systems. However, with the collapse of communism, Al-Hassan began to look to other nations to supply his military.

While building up his military capabilities, Al-Hassan started to fan the flames of unrest and jealousy among his people. By aspiring to create a "Greater Samara", which would incorporate Mojavia, Al-Hassan could rationalize his seizure of the more productive oil fields in the Mojavian regions of Santa Anna and Orange. Claiming himself as the true defender of the Lost People, Al-Hassan launched a worldwide propaganda campaign, based on the assumption that Mojavia rightly belonged to Samara. He sited their common ancestry and their "forced separation" by western powers during the last century as evidence that Mojavia naturally belonged to Samara.

Mojavia had a right to be worried over Al-Hassan's rantings. Mojavia was a much smaller nation, which relied on international trade and the quality and quantity of its oil fields to remain a sovereign state. Mojavia had been a faithful ally of the United States and Great Britain for over forty years, since gaining its independence. It developed a constitutional monarchy based on the benevolent and participatory rule of the Ali clan. King Ali decided to develop the natural mercantile tendencies of his people, leaving the Mojavian military to develop a small force designed to protect the Crown and patrol the border of Samara looking for smugglers and illegal immigrants.

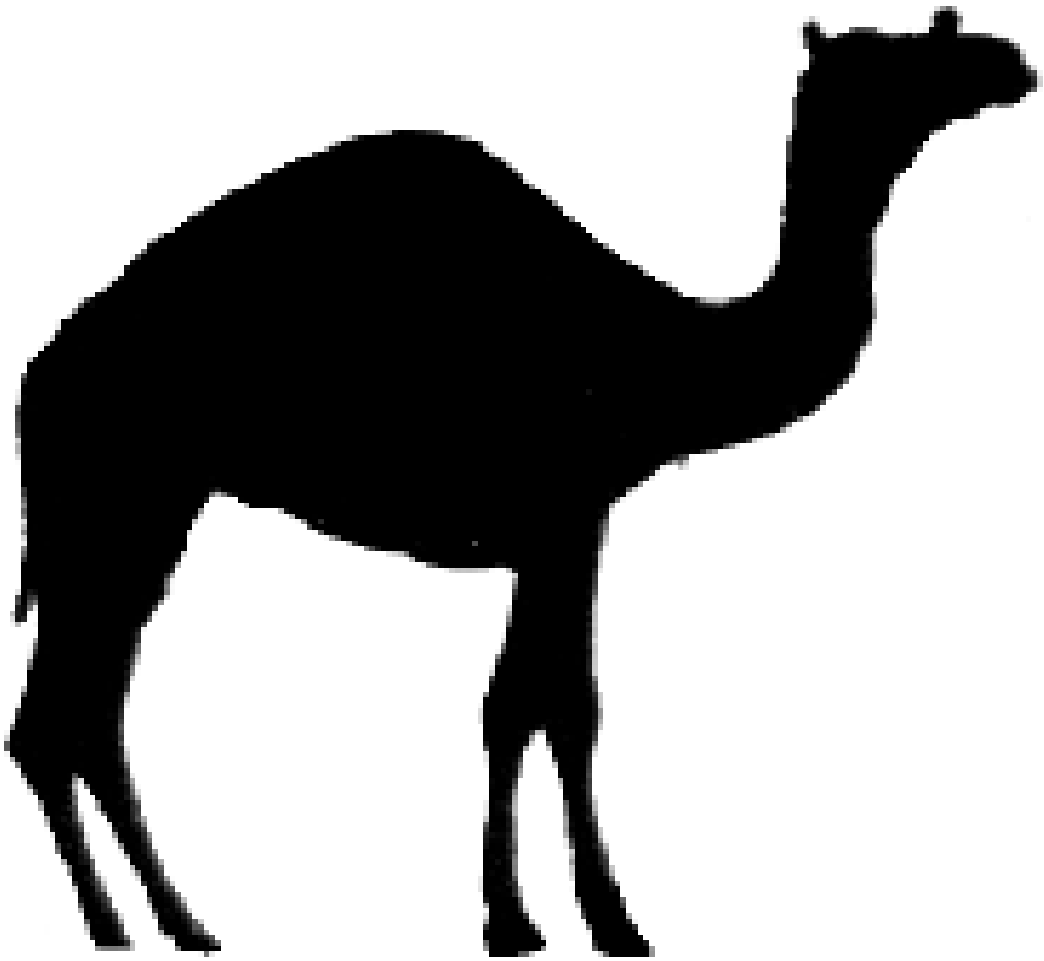
King Ali and his government sought to negotiate with Al-Hassan, hoping to appease him with trade concessions. Despite the apparent conciliatory outcome of the negotiations, Al-Hassan continued to broadcast his bellicose rhetoric, which inflamed his own people, while he sent in agent provocateurs to destabilize domestic tranquility in Mojavia.

At the same time, the Samaran Armed forces conducted a series of exercises close to the border. Samaran diplomats assured the Mojavian government that the maneuvers were normal training exercises to test Samaran defensive doctrine. The Mojavians, however, were not convinced of Al-Hassan's peaceful intentions.

Special Situation: Over a two-month period, President Al-Hassan moved maneuver elements of his army along the frontier between Samara and Mojavia. Samaran Air Force (SAF) incursions into Mojavian air space increased. As the SAF and the Samaran Army increased their reconnaissance and surveillance effort along the frontier, Mojavian Bedouin clans reported to the Mojavian Constabulary (MC) that armed strangers were transiting the desert in Land Rover-type vehicles. Tension along the frontier increased when Mojavian National Guard (MNG) and Mojavian Constabulary patrols came under attack by unknown elements from Samara. King Ali's intelligence indicated the Samarans could invade within several weeks. Realizing that his own armed forces could not repel a concentrated assault from the Samaran Army, King Ali asked the United Nations and the United States for security assistance.

Early in 1999, the National Command Authority directed the United States Central Command (USCENTCOM) to provide security assistance to the MNG as well as to commence force presence operations within the Kingdom of Mojavia, to deter Samaran aggression. Ammunition, advisors, and spare parts were immediately airlifted into Mojavia from bases in the United States. USCENTCOM established Combined Task Force (CTF) Mojavia to lead the military assistance effort as well as to prepare for a possible Samaran incursion. This Combined Task Force consists of Army Forces (USARCENT), Marine Forces (USMARCENT), Air Forces (USCENTAF), and Special Operations Forces (SOCCENT). The Ready Brigade of the 82nd Airborne Division is to arrive at the port of Palm Springs, with a MPS-equipped MAGTF due to arrive in the Mojavian capital of Twenty-nine Palms soon after. Despite the significant and very public American presence, President Al-Hassan continues his military buildup. CTF Mojavia C2 (Intelligence) will issue intelligence summaries as required to CTF compo

Chapter 2
Order of Battle



SAMARAN ARMY

ORDER OF BATTLE

GENERAL HEADQUARTERS ORDER OF BATTLE

21ST CORPS

- 41ST ARMOR DIVISION
- 42ND MECHANIZED DIVISION
- 43RD INFANTRY DIVISION
- 44TH INFANTRY DIVISION

22ND CORPS

- 51ST ARMOR DIVISION
- 52ND MECHANIZED DIVISION
- 53RD INFANTRY DIVISION
- 54TH INFANTRY DIVISION

23RD CORPS

- 61ST ARMOR DIVISION
- 91ST ARMOR DIVISION
- 62ND MECHANIZED DIVISION
- 63RD INFANTRY DIVISION
- 64TH INFANTRY DIVISION
- 93RD INFANTRY DIVISION
- 2ND SPECIAL FORCES DIVISION

24TH CORPS

- 71ST ARMOR DIVISION
- 72ND MECHANIZED DIVISION
- 73RD INFANTRY DIVISION
- 74TH INFANTRY DIVISION

25TH CORPS

- 81ST ARMOR DIVISION
- 82ND MECHANIZED DIVISION
- 83RD INFANTRY DIVISION
- 84TH INFANTRY DIVISION

13TH SPECIAL FORCES BRIGADE

- 1ST SPECIAL FORCES BATTALION
- 2ND SPECIAL FORCES BATTALION
- 3RD SPECIAL FORCES BATTALION

13TH SURFACE-TO-SURFACE MISSILE BRIGADE

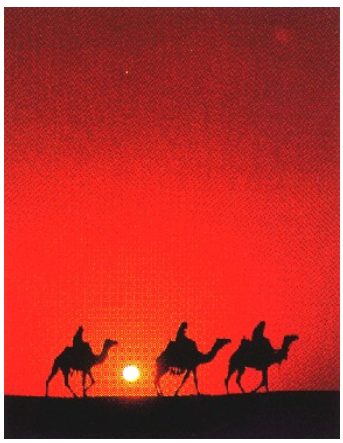
1ST SURFACE-TO-SURFACE MISSILE BATTALION (SCUD-B)
2ND SURFACE-TO-SURFACE MISSILE BATTALION (SCUD-B)
3RD SURFACE-TO-SURFACE MISSILE BATTALION (SCUD-B)

13TH AIR DEFENSE ARTILLERY BRIGADE

412TH SURFACE-TO-AIR MISSILE REGIMENT (18 x SA-8b GECKO)
413TH SURFACE-TO-AIR MISSILE REGIMENT (18 x SA-8b GECKO)
414TH SURFACE-TO-AIR MISSILE REGIMENT (18 x SA-2d Mod 3 GUIDELINE)
415TH SURFACE-TO-AIR MISSILE REGIMENT (18 x SA-2d Mod 3 GUIDELINE)
416TH SURFACE-TO-AIR MISSILE REGIMENT (12 x 2S6M)
417TH SURFACE-TO-AIR MISSILE REGIMENT (18 x ROLAND 2)

13TH ARTILLERY BRIGADE

581ST ARTILLERY BATTALION (18 x BM-21)
582ND ARTILLERY BATTALION (18 x BM-21)
583RD ARTILLERY BATTALION (18 x BM-21)
584TH ARTILLERY BATTALION (18 x BM-21)
587TH ARTILLERY BATTALION (18 x 155MM GCT)
588TH ARTILLERY BATTALION (18 x 155MM GCT)
589TH ARTILLERY BATTALION (18 x 155MM GH N-45)
590TH ARTILLERY BATTALION (18 x 155MM GH N-45)
591ST ARTILLERY BATTALION (18 x 155MM G-5)
592ND ARTILLERY BATTALION (18 x 155MM G-5)
593RD ARTILLERY BATTALION (18 x 155MM M109)
594TH ARTILLERY BATTALION (18 x 155MM M109)
595TH ARTILLERY BATTALION (18 x 155MM M109)



EXAMPLES OF GROUND ORDER OF BATTLE
ORGANIZATION
OF THE
SAMARAN ARMY

21ST CORPS

- 41ST ARMOR DIVISION
- 42ND MECHANIZED DIVISION
- 43RD INFANTRY DIVISION
- 44TH INFANTRY DIVISION
- 214TH MECHANIZED BRIGADE (BMP-2 & T-72A)
- 21ST ARTILLERY BRIGADE
  - 871ST ARTILLERY BATTALION (18 x 2S3)
  - 872ND ARTILLERY BATTALION (18 x 2S3)
  - 873RD ARTILLERY BATTALION (18 x GH N-45)
  - 874TH ARTILLERY BATTALION (18 x GH N-45)
  - 875TH ARTILLERY BATTALION (18 x BM-21)
  - 876TH ARTILLERY BATTALION (18 x BM-21)
  - 133RD ARTILLERY TARGET ACQUISITION BATTALION
- 21ST ANTI-AIRCRAFT ARTILLERY BRIGADE
  - 809TH ANTI-AIRCRAFT ARTILLERY BATTALION
  - 810TH ANTI-AIRCRAFT ARTILLERY BATTALION
  - 590TH SURFACE-TO-AIR MISSILE BATTALION (20 x SA-6a Mod 0 GAINFUL)
- 21ST COMMANDO BRIGADE
- 21ST ELECTRONIC WARFARE BATTALION
- 21ST FIELD ENGINEER BATTALION
- 21ST SIGNAL BATTALION
- 21ST CHEMICAL DEFENSE COMPANY
- 21ST RECONNAISSANCE BATTALION
- 21ST GUARD COMPANY
- 21ST MEDICAL BATTALION
- 21ST ELECTRICAL AND MECHANICAL ENGINEER BATTALION
- 21ST ANTI-TANK BATTALION
- 21ST ENGINEER BRIDGING BATTALION
- 21ST ROCKET BATTALION
- 21ST TANK TRANSPORTER REGIMENT
- 21ST ARMY AVIATION WING
  - 1ST HELICOPTER SQUADRON
  - 2ND HELICOPTER SQUADRON
  - 3RD COMPOSITE HELICOPTER SQUADRON
  - 4TH HELICOPTER SQUADRON
  - 5TH HELICOPTER SQUADRON
- 21ST SUPPLY AND TRANSPORTATION BN

41ST ARMOR DIVISION

- 101ST ARMOR BRIGADE
- 102ND ARMOR BRIGADE
- 103RD MOTORIZED BRIGADE (BTR & CASCAVEL)
- 41ST ARTILLERY BRIGADE
  - 861ST ARTILLERY BATTALION (18 x 2S1)
  - 862ND ARTILLERY BATTALION (18 x 2S1)
  - 863RD ARTILLERY BATTALION (18 x 2S3)
  - 864TH ARTILLERY BATTALION (18 x 2S3)
  - 101ST LIGHT ARTILLERY BATTERY (12 x 120MM MTLB)
  - 102ND LIGHT ARTILLERY BATTERY (12 x 120MM MTLB)
  - 103RD LIGHT ARTILLERY BATTERY (12 x 120MM / ZIL)
- 41ST AIR DEFENSE ARTILLERY BRIGADE
  - 1ST SELF-PROPELLED ANTI-AIRCRAFT BATTERY
  - 2ND COMPOSITE ANTI-AIRCRAFT BATTALION
  - 3RD COMPOSITE ANTI-AIRCRAFT BATTALION
  - 4TH ANTI-AIRCRAFT ARTILLERY BATTALION
  - 5TH ANTI-AIRCRAFT ARTILLERY BATTALION
  - 6TH ANTI-AIRCRAFT ARTILLERY BATTALION
  - 7TH SURFACE-TO-AIR MISSILE BATTALION
- 41ST COMMANDO BATTALION
- 41ST RECONNAISSANCE BATTALION
- 41ST FIELD ENGINEER BATTALION
- 41ST SIGNAL BATTALION
- 41ST CHEMICAL COMPANY
- 41ST MEDICAL BATTALION
- 41ST MILITARY POLICE COMPANY
- 41ST SUPPLY AND TRANSPORTATION BATTALION
- 41ST ELECTRICAL AND MECHANICAL ENGINEER BATTALION

101ST ARMOR BRIGADE

- 471ST TANK REGIMENT (35 x T-72A)
- 472ND TANK REGIMENT (35 x T-72A)
- 473RD TANK REGIMENT (35 x T-72A)
- 1ST MECHANIZED BATTALION (39 x BMP-2)
- 101ST SUPPLY AND TRANSPORTATION COMPANY
- 101ST COMMANDO COMPANY
- 101ST ASSAULT ENGINEER COMPANY
- 101ST CHEMICAL PLATOON
- 101ST RECONNAISSANCE PLATOON

103RD MECHANIZED BRIGADE

- 1ST MECHANIZED BATTALION (39 x BMP-2)
- 2ND MECHANIZED BATTALION (39 x BMP-2)
- 3RD MECHANIZED BATTALION (39 x BMP-2)
- 474TH TANK REGIMENT (35 x T-72A)
- 103RD SUPPLY AND TRANSPORTATION COMPANY
- 103RD COMMANDO COMPANY
- 103RD ASSAULT ENGINEER COMPANY
- 103RD CHEMICAL PLATOON
- 103RD RECONNAISSANCE PLATOON

42ND MECHANIZED DIVISION

111TH MECHANIZED BRIGADE (112TH MECH BDE SUBSTITUTES
1ST MECHANIZED BATTALION (39 x BMP-2) M-80AK FOR BMP-2 AND T-72S
2ND MECHANIZED BATTALION (39 x BMP-2) FOR T-80U. NUMBERS REMAIN
3RD MECHANIZED BATTALION (39 x BMP-2) SAME.)
478TH TANK REGIMENT (35 x T-80U)
111TH SUPPLY AND TRANSPORTATION COMPANY
111TH COMMANDO COMPANY
111TH ASSAULT ENGINEER COMPANY
111TH RECONNAISSANCE PLATOON
111TH CHEMICAL PLATOON/111TH HEADQUARTERS COMPANY/111TH SIGNAL COMPANY

113TH ARMOR BRIGADE
479TH TANK REGIMENT (35 x T-80U)
480TH TANK REGIMENT (35 x T-80U)
481ST TANK REGIMENT (35 x T-80U)
1ST MECHANIZED BATTALION (39 x BMP-2)
113TH SUPPLY AND TRANSPORTATION COMPANY
113TH COMMANDO COMPANY
113TH ASSAULT ENGINEER COMPANY
113TH RECONNAISSANCE PLATOON
113TH CHEMICAL PLATOON
113TH HEADQUARTERS AND SIGNAL COMPANY

42ND ARTILLERY BRIGADE
1ST BATTALION (18 x D-20)
2ND BATTALION (18 x D-20)
3RD BATTALION (18 x D-30)
4TH BATTALION (18 x 2S3)
5TH BATTALION (7 x LIGHT BATTERIES (120mm))

42ND AAA BRIGADE
1ST SPAAA BATTALION
2ND COMPOSITE AAA BATTALION
3RD COMPOSITE AAA BATTALION
4TH AAA BATTALION
5TH AAA BATTALION
6TH AAA BATTALION
7TH SAM BATTALION
42ND COMMANDO BATTALION
42ND RECONNAISSANCE BATTALION
42ND FIELD ENGINEER BATTALION
42ND SIGNAL BATTALION
42ND CHEMICAL COMPANY
42ND MEDICAL BATTALION
42ND MILITARY POLICE COMPANY
42ND SUPPLY AND TRANSPORTATION BATTALION
42ND ELECTRICAL AND MECHANIZED ENGINEER BATTALION
42ND ANTI-TANK BATTALION
42ND HEADQUARTERS BATTALION

43RD INFANTRY DIVISION (44TH INF DIV IS VERY SIMILAR (BTR-80 IN MOT UNITS))

- 120TH INFANTRY BRIGADE
- 121ST INFANTRY BRIGADE
- 122ND MOTORIZED BRIGADE (BTR-70)
- 43RD ARTILLERY BRIGADE
  - 443RD ARTILLERY BATTALION (18 x D-20)
  - 444TH ARTILLERY BATTALION (18 x D-20)
  - 445TH ARTILLERY BATTALION (18 x D-30)
  - 446TH ARTILLERY BATTALION (18 x D-30)
  - 120TH LIGHT ARTILLERY BATTERY (12 x 120MM / ZIL)
  - 121ST LIGHT ARTILLERY BATTERY (12 x 120MM / ZIL)
  - 122ND LIGHT ARTILLERY BATTERY (12 x 120MM / ZIL)
- 43RD AAA BRIGADE
  - 1ST SPAAA BATTERY
  - 2ND COMPOSITE BATTALION
  - 3RD COMPOSITE BATTALION
  - 4TH AAA BATTALION
  - 5TH AAA BATTALION
  - 6TH AAA BATTALION
  - 7TH SAM BATTALION
- 43RD COMMANDO BATTALION
- 43RD RECONNAISSANCE BATTALION
- 43RD FIELD ENGINEER BATTALION
- 43RD TANK REGIMENT (35 x T-72A)
- 43RD SIGNAL BATTALION
- 43RD CHEMICAL COMPANY
- 43RD MEDICAL BATTALION
- 43RD MILITARY POLICE COMPANY
- 43RD SUPPLY AND TRANSPORTATION BATTALION
- 43RD ELECTRICAL AND MECHANIZED ENGINEER BATTALION
- 43RD ANTI-TANK BATTALION

120TH INFANTRY BRIGADE

- 1ST INFANTRY BATTALION
- 2ND INFANTRY BATTALION
- 3RD INFANTRY BATTALION
- 120TH BRIGADE HEADQUARTERS AND SIGNAL COMPANY
- 120TH COMMANDO COMPANY
- 120TH SUPPLY AND TRANSPORTATION COMPANY
- 120TH CHEMICAL PLATOON
- 120TH MORTAR BATTERY

AIR ORDER OF BATTLE:

FIXED WING

27TH BOMBER SQUADRON
9 x Tu-22 BLINDER
16 x Tu-16 BADGER

45TH FIGHTER/GROUND ATTACK SQUADRON
18 x Su-25 FROGFOOT

48TH FIGHTER/GROUND ATTACK SQUADRON
20 x MIRAGE F1

49TH FIGHTER/GROUND ATTACK SQUADRON
20 x MiG-23 FLOGGER

51ST FIGHTER/GROUND ATTACK SQUADRON
20 x MiG-21 FISHBED

53RD FIGHTER/GROUND ATTACK SQUADRON
20 x HAWKER HUNTER

55TH FIGHTER/GROUND ATTACK SQUADRON
20 x Su-20 FITTER

57TH FIGHTER/GROUND ATTACK SQUADRON
20 x MIRAGE F1

59TH FIGHTER/GROUND ATTACK SQUADRON
20 x Su-25 FROGFOOT

61ST FIGHTER/GROUND ATTACK SQUADRON
20 x MiG-23 FLOGGER

40TH INTERCEPTOR SQUADRON
20 x MiG-29 FULCRUM

42ND INTERCEPTOR SQUADRON
20 x MiG-29 FULCRUM

44TH INTERCEPTOR SQUADRON
20 x MiG-29 FULCRUM

46TH INTERCEPTOR SQUADRON
20 x MiG-29 FULCRUM

48TH INTERCEPTOR SQUADRON
20 x MiG-25 FOXBAT

50TH INTERCEPTOR SQUADRON
20 x MiG-25 FOXBAT

35TH RECONNAISSANCE SQUADRON
4 x MIRAGE F1B
10 x MIRAGE FIE

31ST TRANSPORTATION SQUADRON
15 x An-2 COLT
10 x An-12 CUB
10 x Il-76 CANDID

ROTARY WING

1/21 ASSAULT SUPPORT SQUADRON
10 x Mi-2 HOPLITE

2/21 ATTACK HELO SQUADRON
12 x SA-316B ALOUTTE III

3/21 ASSAULT SUPPORT SQUADRON
9 x Mi-17 HIP H

4/21 ATTACK HELO SQUADRON
18 x GAZELLE

5/21 ASSAULT SUPPORT SQUADRON
15 x Mi-8 HIP C

6/21 ATTACK HELO SQUADRON
16 x BO-105

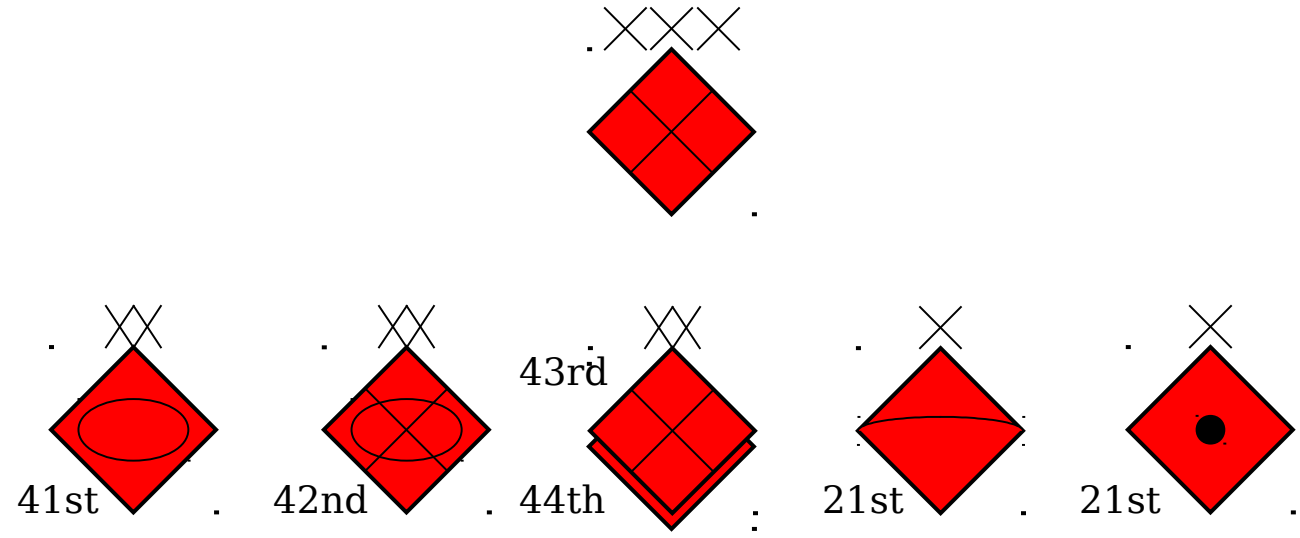
7/21 ASSAULT SUPPORT SQUADRON
12 x Mi-8 HIP C

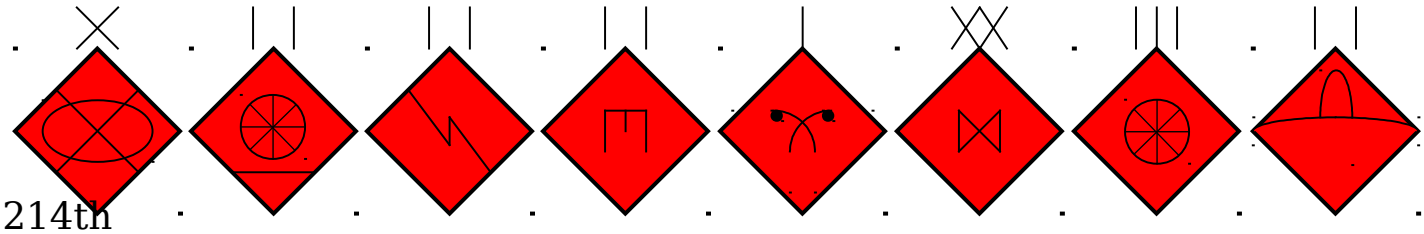
8/21 ATTACK HELO SQUADRON
18 x Mi-24 HIND D

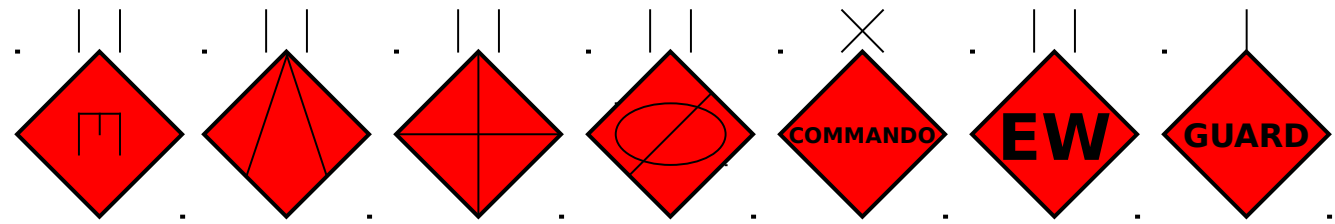
10/21 ATTACK HELO SQUADRON
18 x Mi-24 HIND D

12/21 ATTACK HELO SQUADRON
18 x Mi-24 HIND D

21st Corps

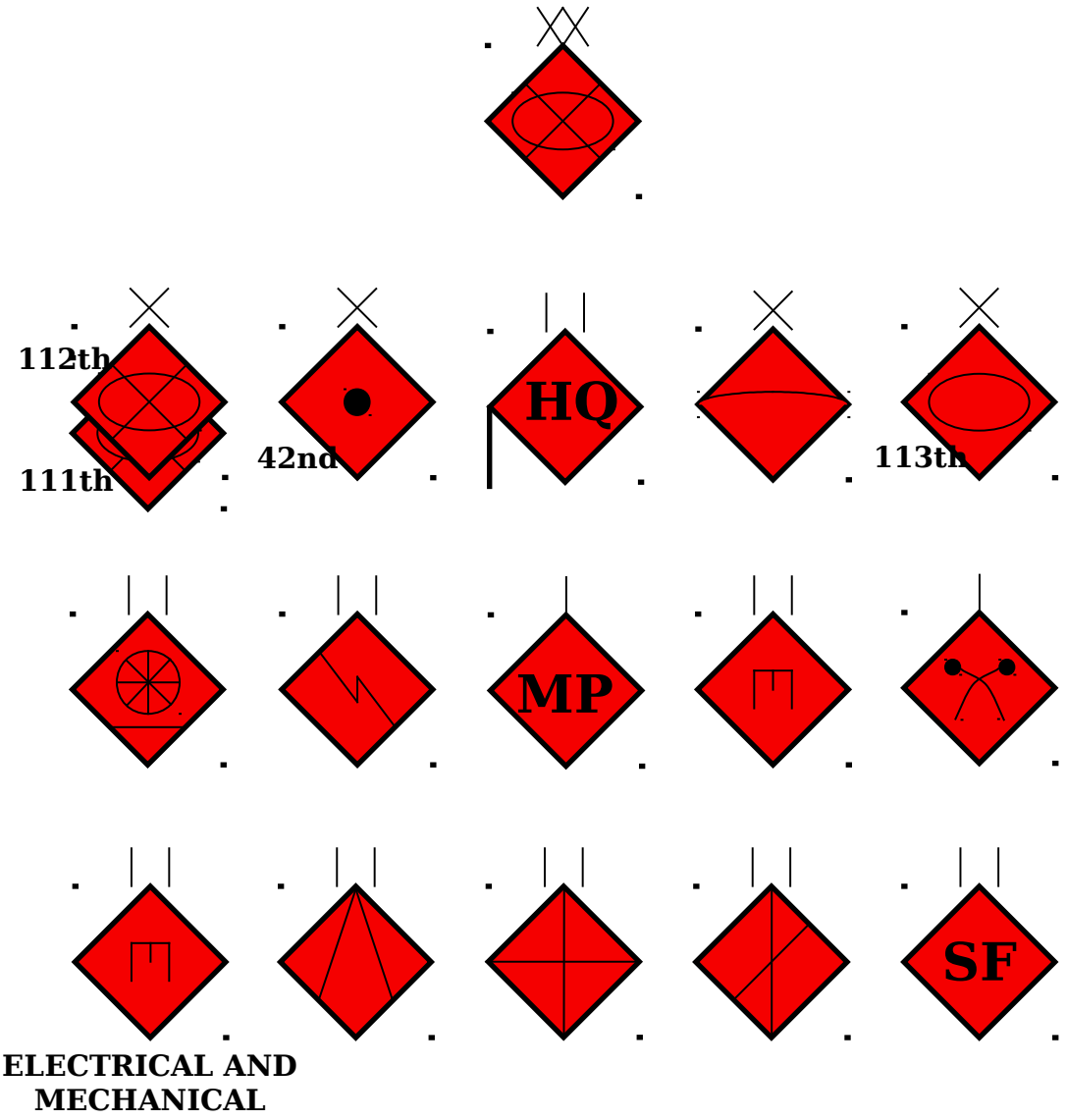




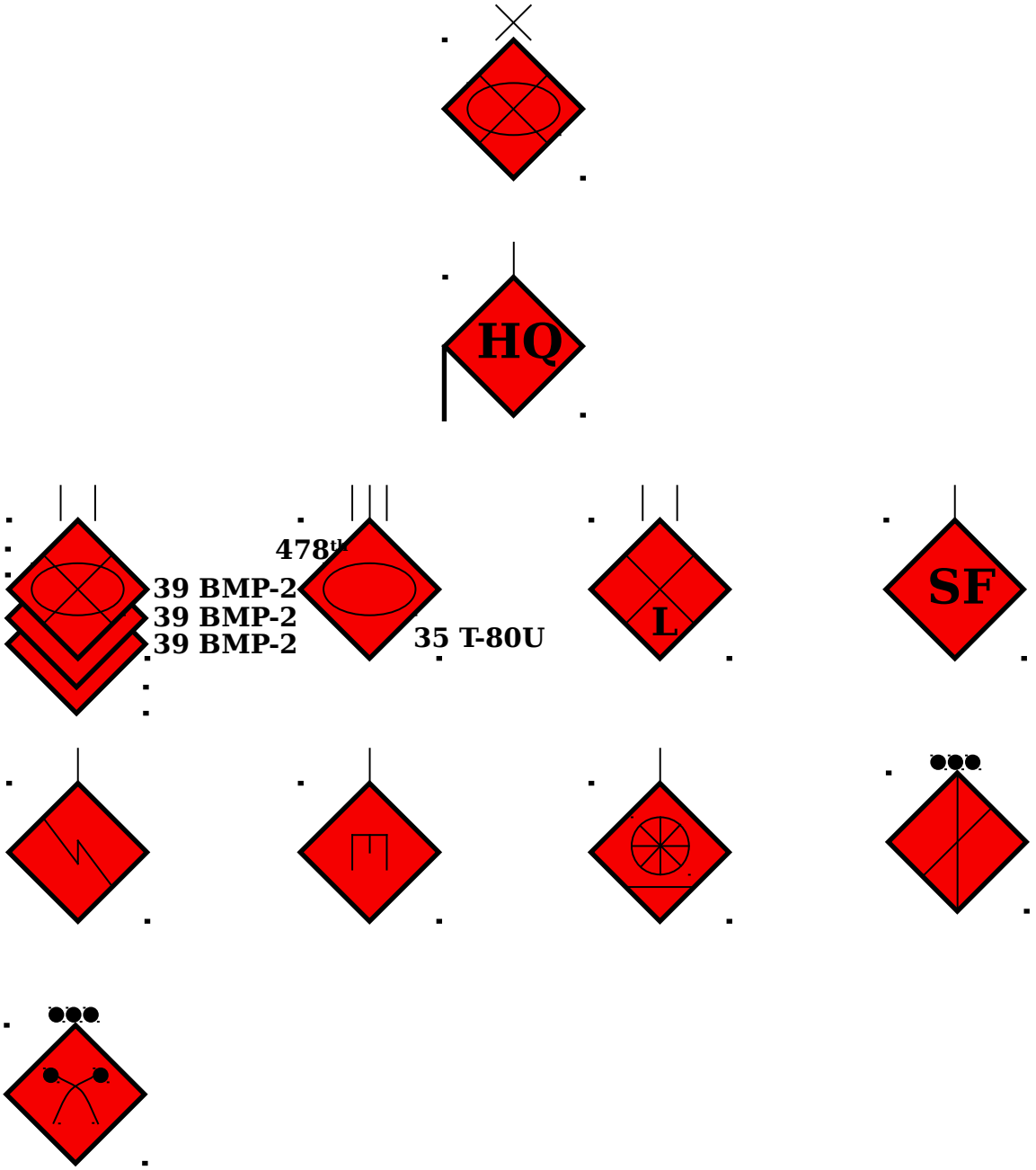


ELECTRONICAL
AND MECHANICAL

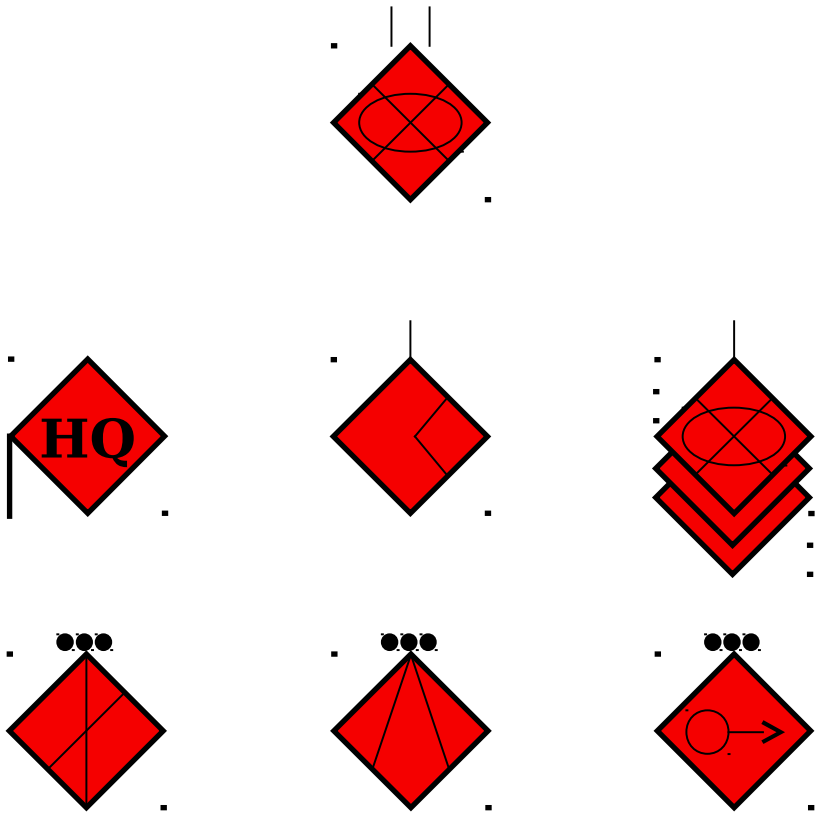
42nd Mechanized Infantry Division



111th Mechanized Infantry Brigade



STANDARD MECHANIZED INFANTRY BATTALION ORGANIZATION



BATTALION HEADQUARTERS

(MECHANIZED INFANTRY BATTALION)

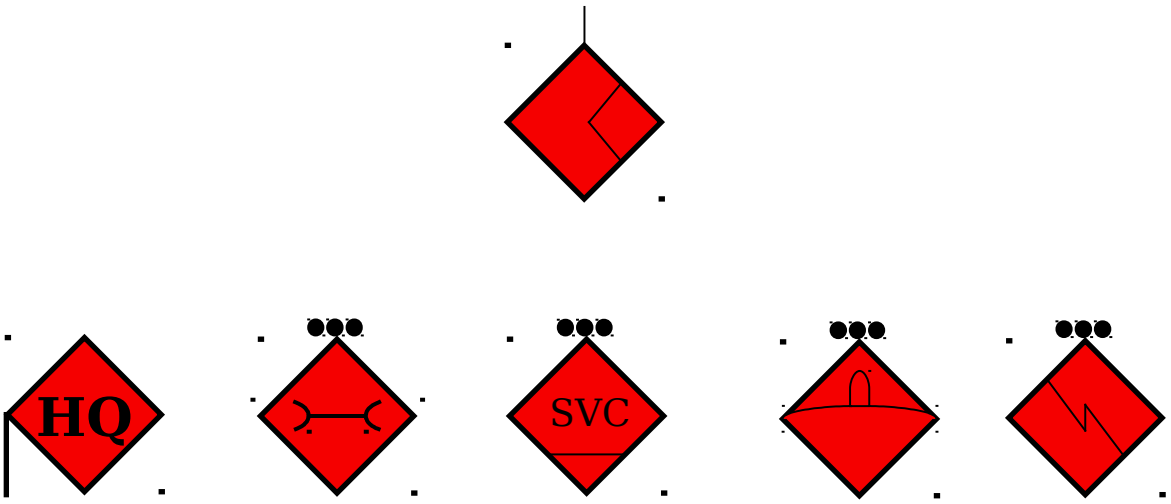
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ACV, BMP-1K/2K/3K, M-80AK	2*	Truck, Utility	1
9mm Pistol, PM	6	Truck, Light	1
AK-47	8	Radios:	
ATGL, RPG-7V	1	VHF, Manpack, Low-Power	2
ATRL, RPG-22/26	2	VHF, Portable, Low-Power	1
NVG	2	VHF, Vehicle Mount, Medium-Power	2
Night Sight (Small Arms)		HF, Vehicle Mount, Medium-Power	1
		Warning Receiver	1

* In lieu of one of these BMP command variants, some battalion headquarters may have an ACV, BTR (R-145BM), BMP-1KSh, or an M-80AK.

COMBAT SUPPORT COMPANY

(MECHANIZED INFANTRY BATTALION)



PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ACV, BTR (R-145BM), M-80AK	2	Trailer, Cargo, 1-Axle	2
BRDM-2	3	Trailer, Cargo, 2-Axles	2
9mm Pistol, PM	21	Trailer, Generator	1
AK-47	64	Trailer, Kitchen	3
NVG (Driver)	20	Trailer, POL (4,200-Litters)	3
Night Scope (Small Arms)	12	Trailer, POL (1,200-Litters)	1
RPG-7	4	Trailer, Water (900-Litters)	1
ATRL,RPG-22/26	3	Radios:	
SAM, SA-14/16	9	VHF, Portable, Very-Low-Power	3
Truck, Utility	4	VHF, Manpack, Low-Power	9
Truck, Light	8	VHF, Portable, Low-Power	1
Truck, Medium	7	VHF, Veh Mount, Low-Power	2
Truck, Heavy, Recovery	3	VHF, Vehicle Mount, Medium-Power	4
Truck, POL (5,000-Liters)	3	HF, Vehicle Mount, Medium-Power	1
Van, Maintenance	4		
Van, Kitchen	1		
Ambulance	2		
Motorcycle	3		

COMBAT SUPPORT COMPANY HEADQUARTERS

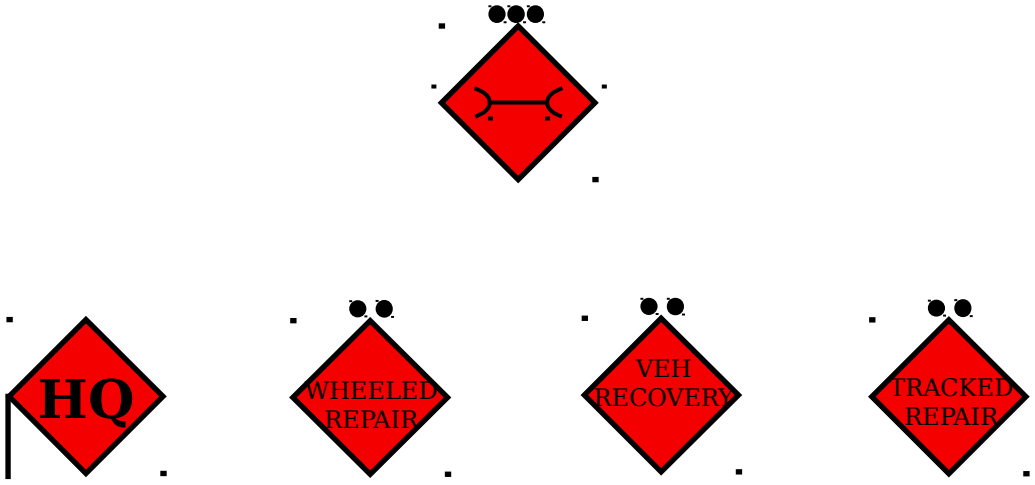
(MECHANIZED INFANTRY BATTALION)

PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
9mm Pistol, PM	2
AK-47	2
Truck, Light	2
Radios:	
VHF, Veh Mount, Low-Power	2

MAINTENANCE PLATOON

(MECHANIZED INFANTRY BATTALION)

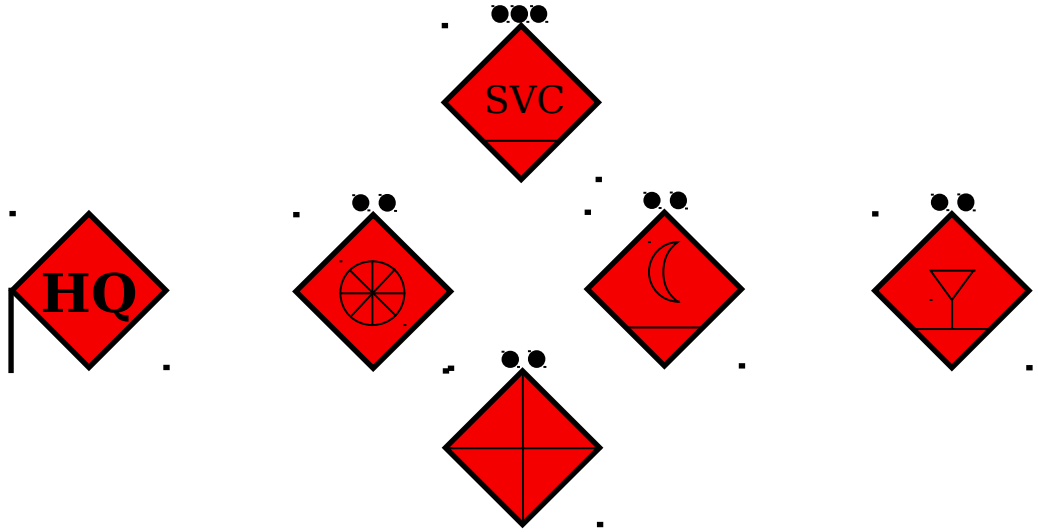


PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
9mm Pistol, PM	1
AK-47	20
Truck, Medium	2
Truck, Heavy, Recovery	3
Van, Maintenance	2
Trailer, Cargo, 2-Axles	6
NVG	7
Radios:	
VHF, Manpack, Low-Power	4
VHF, Veh Mount, Med-Power	1

SUPPLY AND SERVICE PLATOON

(MECHANIZED INFANTRY BATTALION)



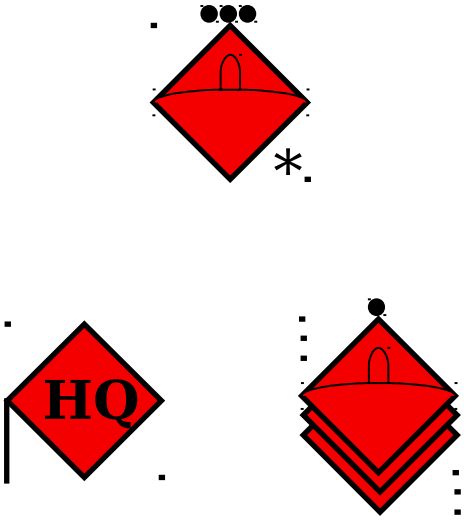
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
9mm Pistol, PM	1	Trailer, Kitchen	3
AK-47	30	Trailer, POL (4,200-Litters)	3
Truck, Utility	1	Trailer, POL (1,200-Litters)	1/0*
Truck, Light	4	Trailer, Water (900-Litters)	1
Truck, Medium	4	NVG	3
Truck, POL (5,000-Liters)	3	Night Sight (Small Arms)	6
Van, Kitchen	1	Radios:	
Ambulance	2	VHF, Manpack, Low-Power	3
Trailer, Cargo, 1-Axle	2	VHF, Portable, Low-Power	1
Trailer, Generator	1		

* Since an IFV-equipped mechanized infantry battalion has greater POL requirements, its supply and service platoon has one additional 1,000-litter POL trailer that is not present in an APC equipped battalion.

SAM PLATOON

(MECHANIZED INFANTRY BATTALION)



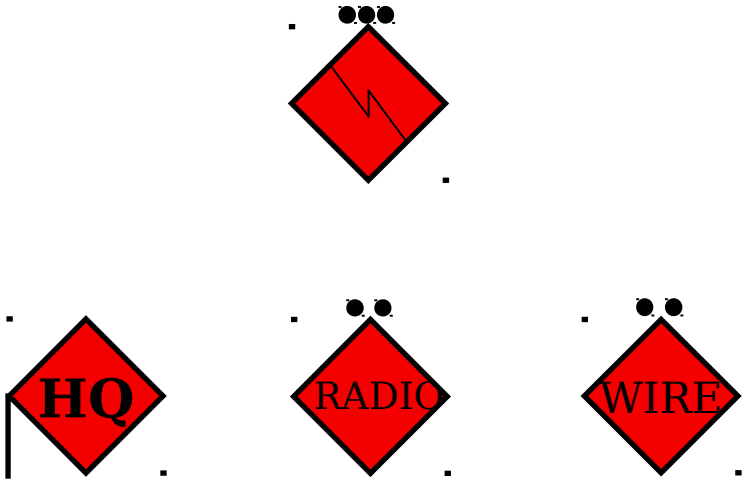
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
SAM, SA-14/16	9
BRDM-2	3
9mm Pistol, PM	16
AK-47	9
ATRL,RPG-22/26	3
NVG	4
Night Sight (Small Arms)	4
Truck, Light	1
Radios:	
VHF, Portable, Very-Low-Power	10
VHF, Veh Mount, Medium-Power	1

* Depending on the situation, the battalion commander may retain the entire SAM platoon under his own control, or he may allocate its squads to individual mechanized infantry companies (or SA-11 batteries).

SIGNAL PLATOON

(MECHANIZED INFANTRY BATTALION)



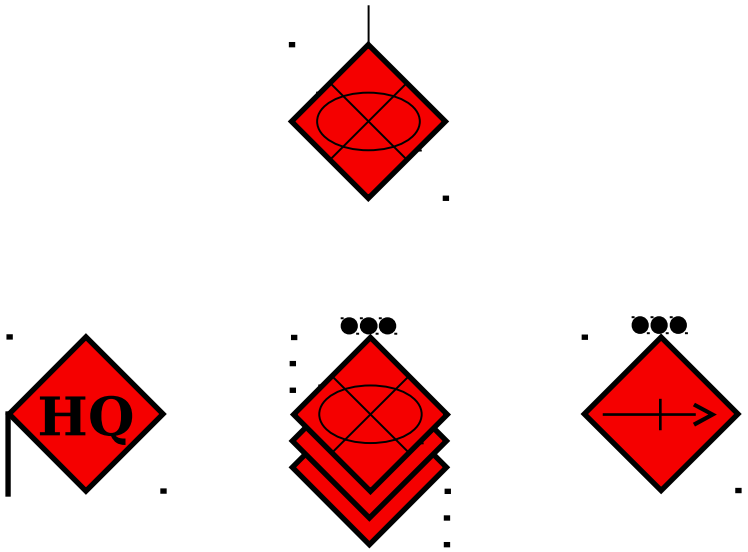
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ACV, BTR (R-145BM), M-80AK*	2	Radios:	
9mm Pistol, PM	1	VHF, Manpack, Low-Power	3
AK-47	13	VHF, Vehicle Mount, Medium-Power	2
Truck, Utility	3	HF, Vehicle Mount, Medium-Power	1
Truck, Light	1		
NVG	3		
Night Scope (Small Arms)	2		
Motorcycle	3		

* Some IFV-equipped mechanized infantry battalions may have the ACV, BMP-1KSh, or M-80AK instead of the ACV, BTR (R-145BM).

MECHANIZED INFANTRY COMPANY

(MECHANIZED INFANTRY BATTALION)



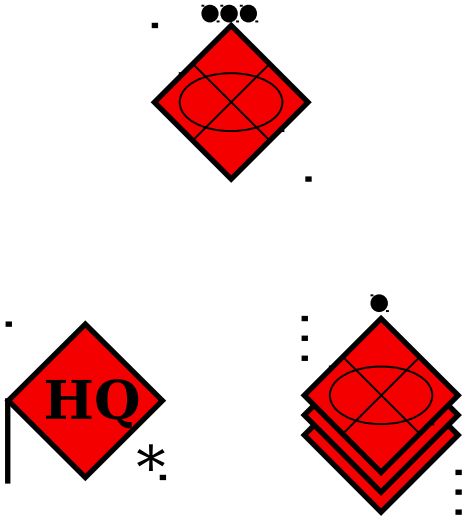
Company Commander	PM
Deputy Commander	PM
Logistics Officer	PM
First Sergeant	AK-74
IFV Cdr/Gunner	PM
IFV Driver/Mechanic	PM

PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
IFV, BMP-1/2/3, M-80AK	12	Radios:	
9mm Pistol, PM	37	VHF, Manpack, Low-Power	1
AK-47	48	VHF, Portable, Low-Power	5
40mm GP-25/30	22	VHF, Veh Mount, Medium-Power	3
5.45mm LMG, RPK-74	9		
7.62 mm Sniper Rifle, SVD	4		
7.62mm MG, FN MAG	9		
ATGL,RPG-7V	11		
ATRL, RPG-22/26	14		
NVG	10		
Night Sight (Small Arms)			

MECHANIZED INFANTRY PLATOON

(MECHANIZED INFANTRY BATTALION)



Platoon Leader	PM
Asst Plt Leader	AK-74
Sniper	AK-74/SVD
Riflemen/Medic	AK-74

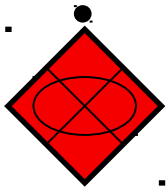
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
IFV, BMP-1/2/3, M-80AK	3	Radios:	
9mm Pistol, PM	10	VHF, Portable, Low-Power	1
AK-47	15	VHF, Veh Mount, Medium-Power	
40mm GP-25/30	22		
5.45mm LMG, RPK-74	3		
7.62 mm Sniper Rifle, SVD	1		
ATGL,RPG-7V	3		
ATRL, RPG-22/26	3		
NVG	4		
Night Sight (Small Arms)	3		

* With a standard nine-man squad, each IFV has one or two empty seats. The platoon leader and a sniper normally ride in the first squad vehicle, the assistant platoon leader in the second, and the rifleman/medic in the third. The sniper has an assault rifle for normal combat. However, he also has a sniper rifle in the IFV for those instances when he acts as a sniper.

MECHANIZED INFANTRY SQUAD

(MECHANIZED INFANTRY BATTALION)



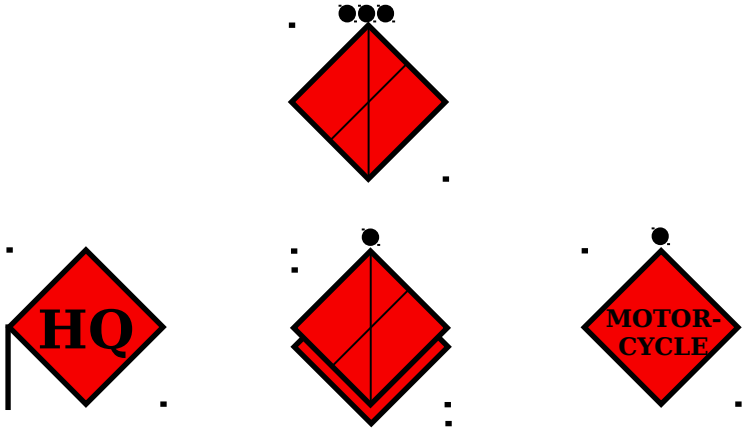
Squad Leader/IFV Commander	AK-47, GP-25/30	
Assistant Squad Leader/IFV Gunner		AK-47, GP-25/30
IFV Driver/Mechanic	AK-47	
Machine Gunner	RPK-47	
Grenadier	RPG-7V, AK-47	
Assistant Grenadier/Rifleman	RPG-22/26, AK-47	
Senior Rifleman	AK-47, GP-25/30	
Rifleman	AK-47	
Rifleman	AK-47	

PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
IFV, BMP-2, M-80AK	1	Radios:	
AK-47	8	VHF, Veh Mount, Medium-Power	
40mm GP-25/30	4		
5.45mm LMG, RPK-74	1		
ATGL,RPG-7V	1		
ATRL, RPG-22/26	1		
NVG	1		
Night Sight (Small Arms)	1		

RECONNAISSANCE PLATOON

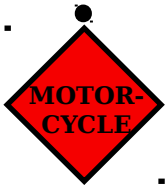
(MECHANIZED INFANTRY BATTALION)



PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ASC, BRDM-2	6	Motorcycle	3
9mm Pistol, PM	1	Range Finder/Target Laser	1
AK-47	21	GPS Receiver	2
GP-25/30 40mm	9	Radar, Battlefield Surveillance, Man-Portable, PSNR-1 or TALL MIKE	1
NVG	13		
Night Sight (Small Arms)	6	Radios:	
ATGL, RPG-7	3	VHF, Portable, Low-Power	9
SAM, SA-14/16	1	VHF, Vehicle Mount, Medium-Power	3

MOTORCYCLE SQUAD

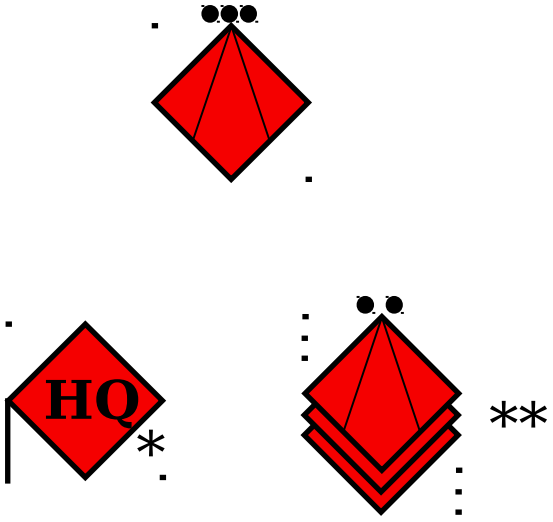


PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
Motorcycle	3
AK-47	6
GP-25/30 40mm	3
NVG	3
GPS Receiver	1
Radios:	
VHF, Portable, Low Power	3

ATGM PLATOON

(MECHANIZED INFANTRY BATTALION)



PRINCIPLE ITEMS OF EQUIPMENT

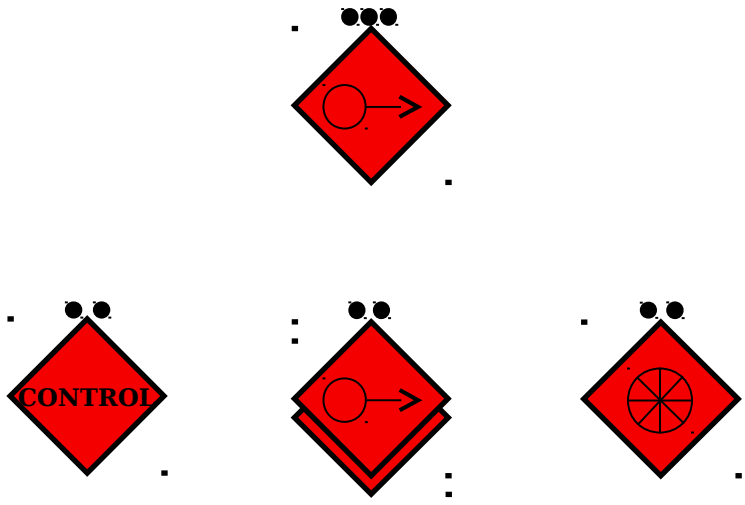
Equipment	Total
BRDM-2	3
9mm Pistol, PM	4
AK-47	19
ATRL, RPG-22/26	3
ATGM, AT-5	4
ATGM, AT-4	6
Night Sight (Small Arms)	3
Radios:	
VHF, Portable, Low-Power	4
VHF, Veh Mount, Med-Power	4

*The platoon leader and assistant platoon learned ride in extra seats in the ATGM section vehicles.

**ATGM's deploy by sections. Each section consists of two teams, each containing one AT-4/SPIGOT launcher.

MORTAR PLATOON

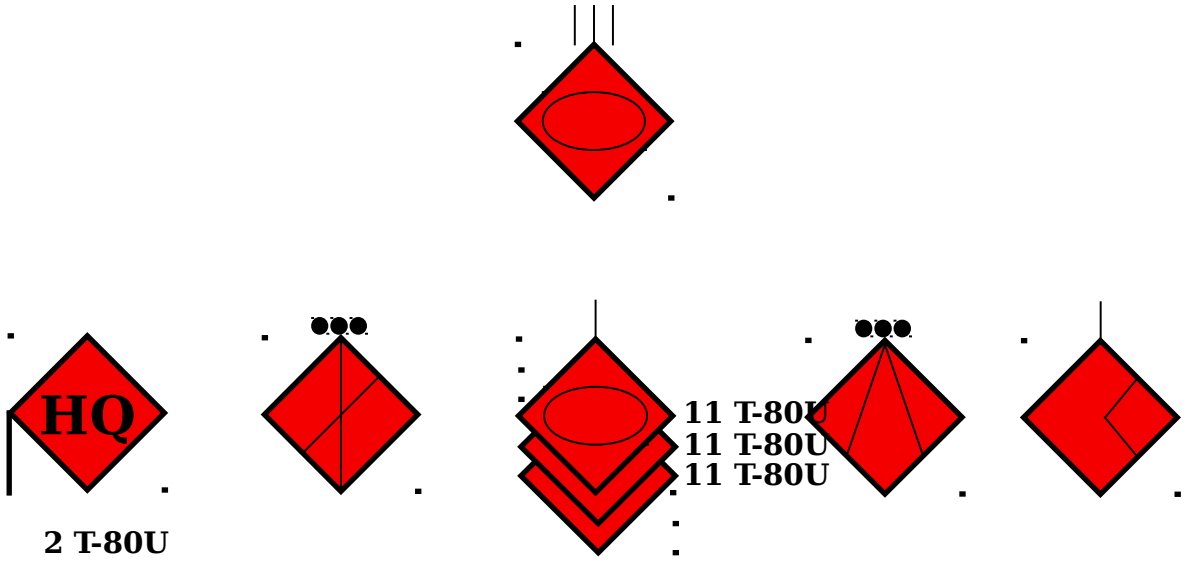
(MECHANIZED INFANTRY BATTALION)



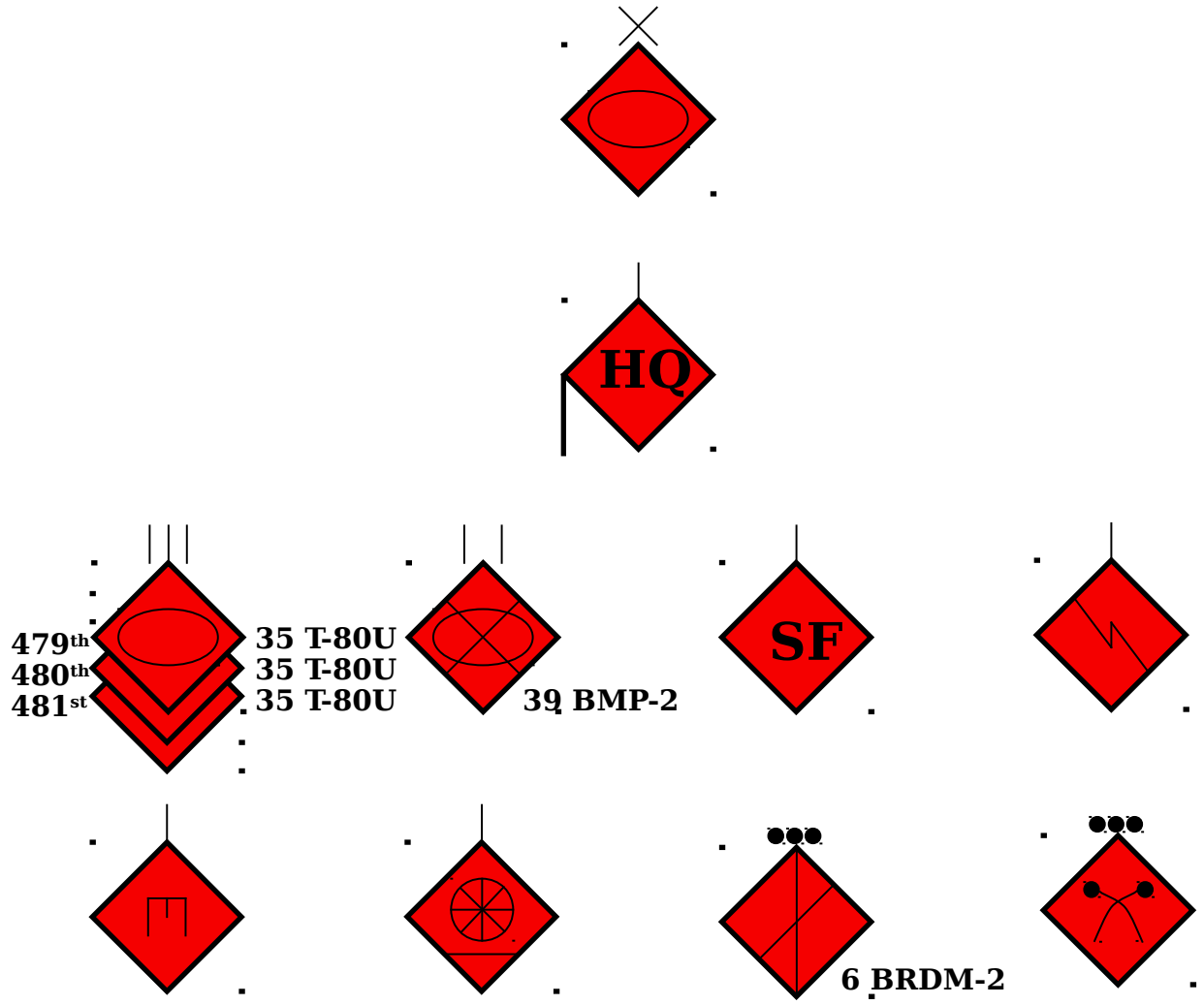
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
82mm Mortar	6	Radios:	
9mm Pistol, PM	8	VHF, Manpack, Low-Power	5
AK-47	24	VHF, Vehicle Mount, Medium-Power	
40mm GP-25/30	6		
7.62mm GP MG, PKM	2		
Truck, Utility	6		
Range Finder/Target Laser	1		
Periscope Aiming Circle, PAB2A	1		
Collimator	6		
NVG	6		
Night Sight (Small Arms)	6		
Night Sight (MG)	2		
Night Sight (Aiming Circle)	1		
GPS Receiver	1		

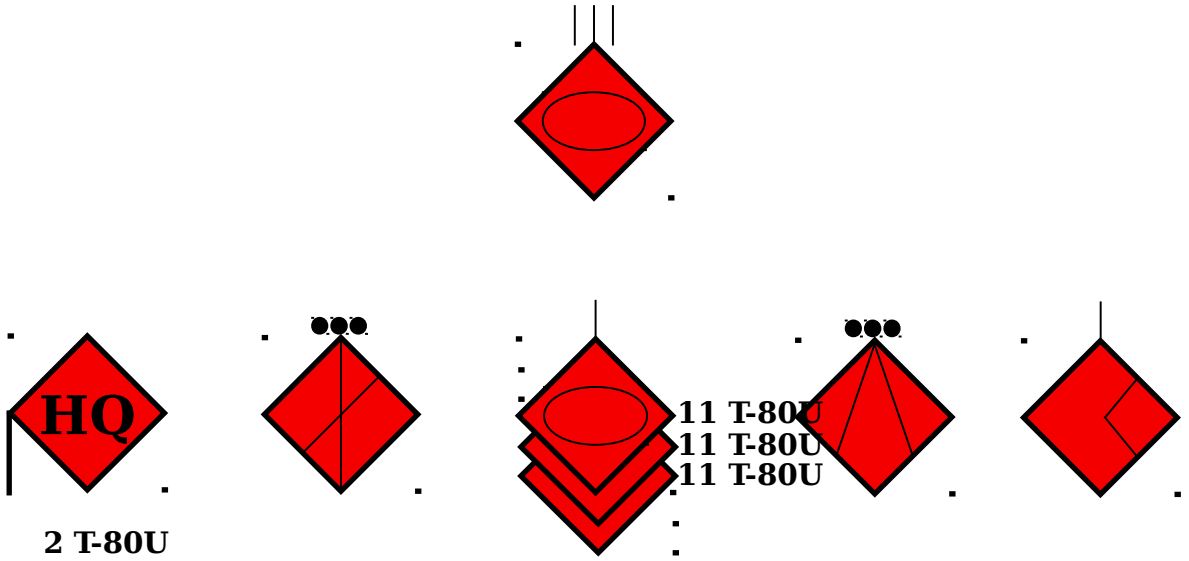
478th Tank Regiment



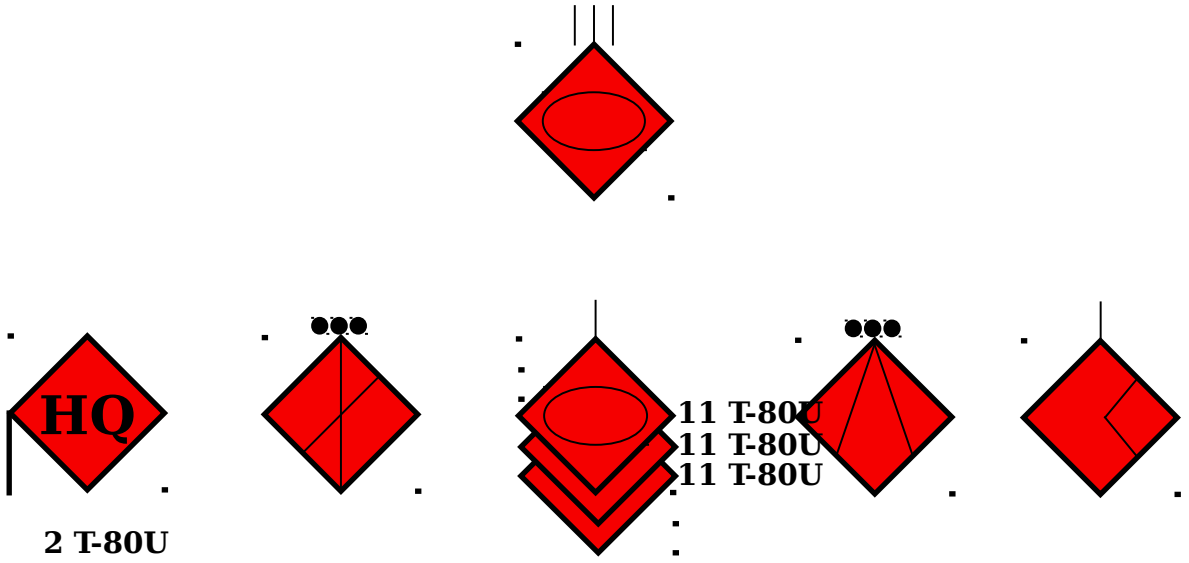
113th Tank Brigade



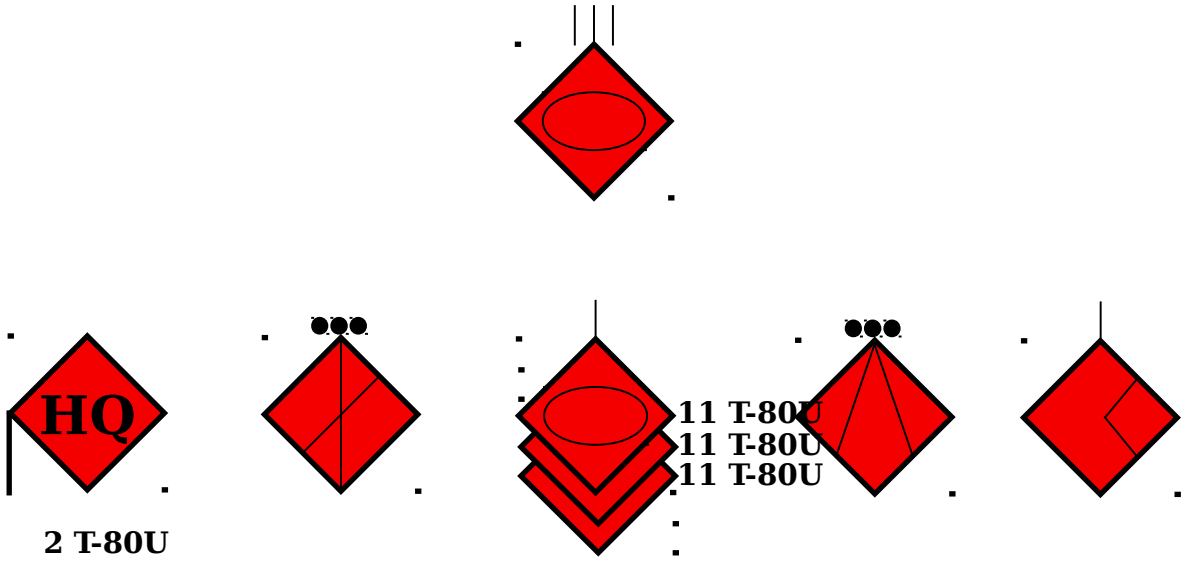
479th Tank Regiment



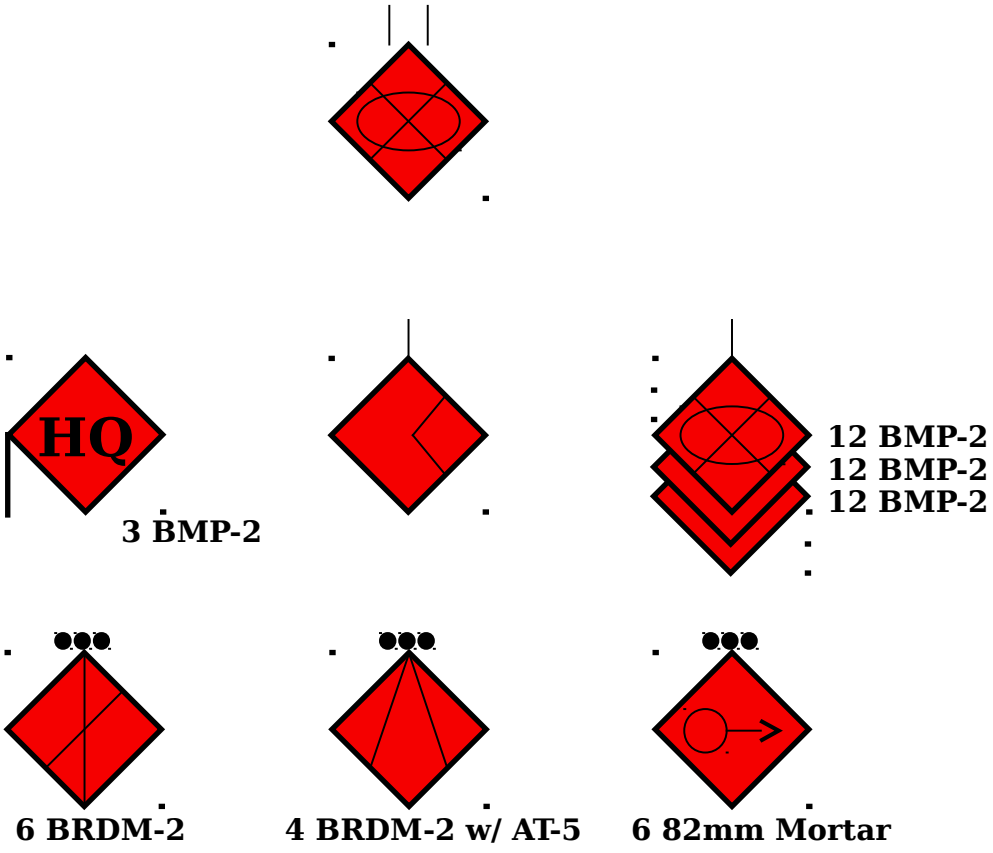
480th Tank Regiment



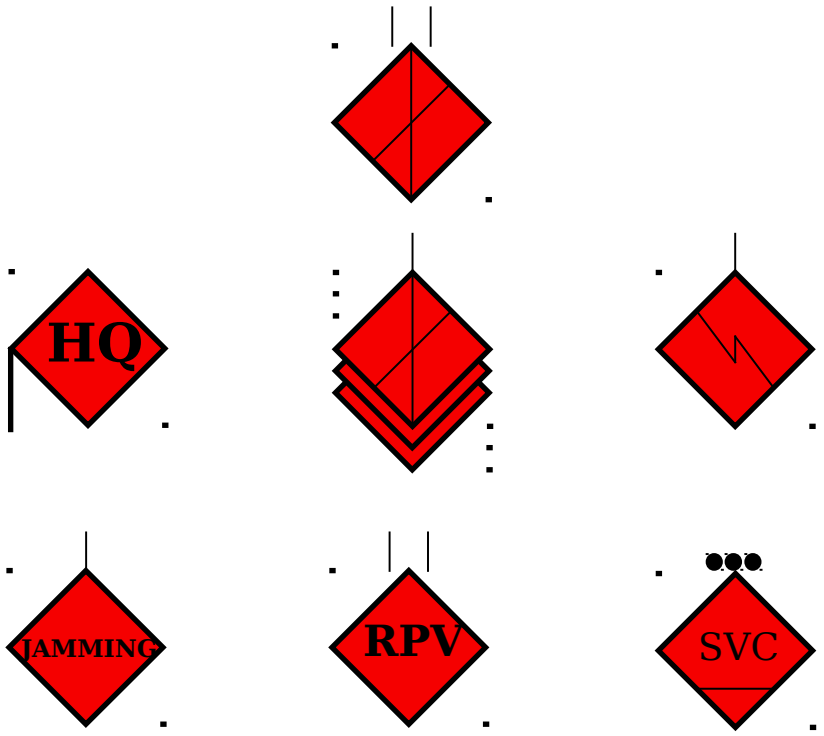
481st Tank Regiment



1st Mechanized Infantry Battalion of 11

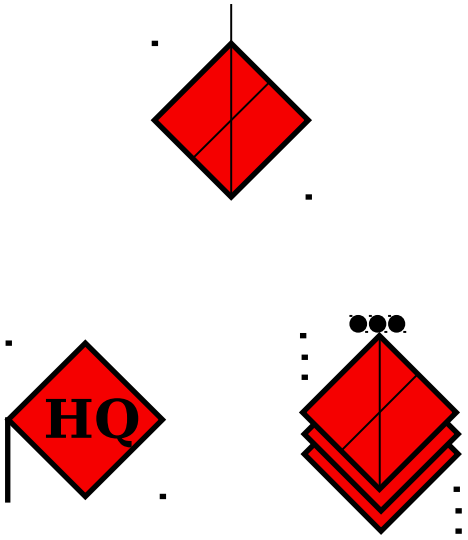


42nd RECON AND ELECTRONIC WARFARE BATTALION



RECONNAISSANCE COMPANY

(RECON AND EW BATTALION)

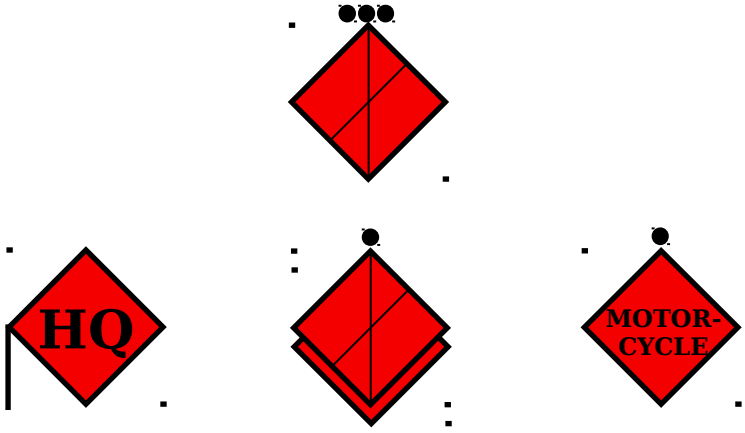


PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ASC, BRDM-2, Cascavel EE-9, BRM-23	18	Motorcycle	9
9mm Pistol, PM	3	Range Finder/Target Laser	3
AK-47	63	GPS Receiver	6
GP-25/30 40mm	27	Radar, Battlefield Surveillance, Man-Portable, PSNR-1 or TALL MIKE	1
NVG	39	Radios:	
Night Sight (Small Arms)	18	VHF, Portable, Low-Power	27
ATGL, RPG-7	9	VHF, Vehicle Mount, Medium-Power	3
SAM, SA-14/16	3		

RECONNAISSANCE PLATOON

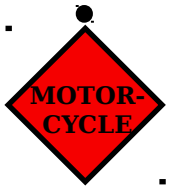
(RECON AND EW BATTALION)



PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
ASC, BRDM-2, Cascavel EE-9, BRM-23	6	Motorcycle	3
9mm Pistol, PM	1	Range Finder/Target Laser	1
AK-47	21	GPS Receiver	2
GP-25/30 40mm	9	Radar, Battlefield Surveillance, Man-Portable, PSNR-1 or TALL MIKE	1
NVG	13	Radios:	
Night Sight (Small Arms)	6	VHF, Portable, Low-Power	9
ATGL, RPG-7	3	VHF, Vehicle Mount, Medium-Power	
SAM, SA-14/16	1		

MOTORCYCLE SQUAD

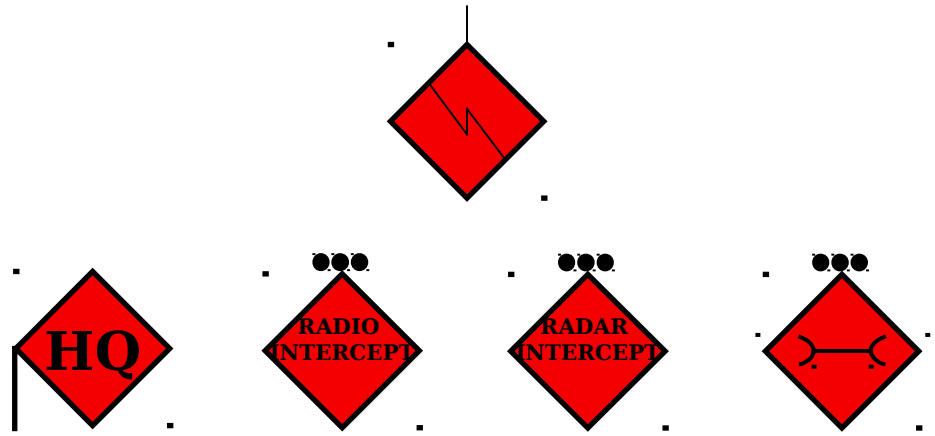


PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
Motorcycle	3
AK-47	6
GP-25/30 40mm	3
NVG	3
GPS Receiver	1
Radios:	
VHF, Portable, Low Power	3

SIGNALS RECONNAISSANCE COMPANY

(RECON AND EW BATTALION)



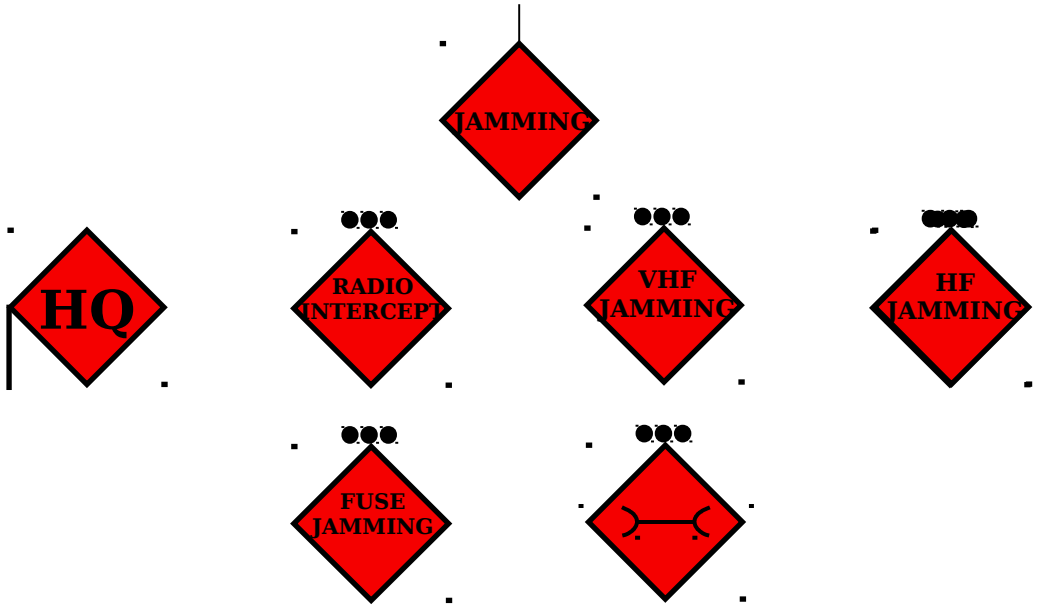
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
Radio Intercept/Direction Finder, HF/VHF, R-381T*	3	Trailer, Water (900-Liters)	1
Radar Intercept/Direction Finder, NRS-1/POLEDISH	3	Radios:	7
Truck, Utility	1	VHF, Manpack, Low-Power	7
Truck, Light	1	HF/VHF, Vehicle Mount, Med-Power	4
Van, Command	1	HF/VHF, Vehicle Mount, High-Power	1
Van, Maintenance	1	HF, Manpack, Low-Power	4
Trailer, Generator	7		

* Some units may have older van-mounted radio intercept and DF systems rather than the R-381T versions mounted on modified MT-LBu armored, tracked vehicles.

JAMMING COMPANY

(RECON AND EW BATTALION)



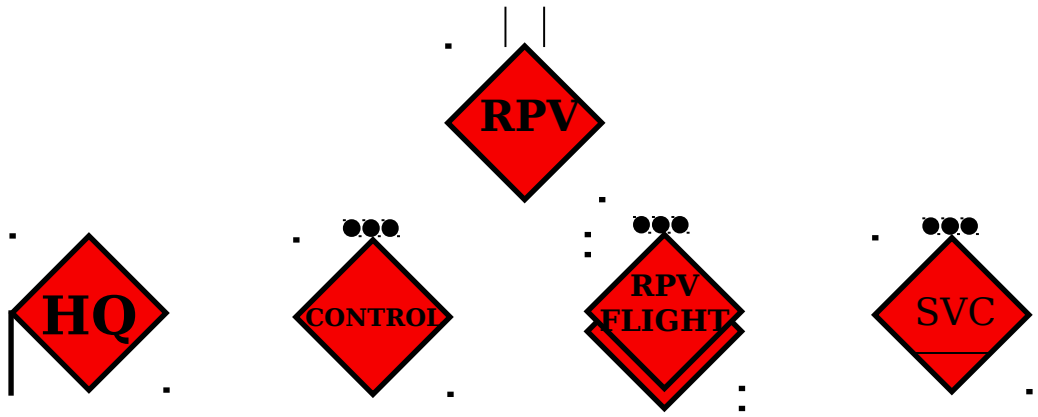
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
Radio Intercept/Direction Finder, HF/VHF	3	Van, Command	1
Communications Jammer, VHF, R-330P*	6	Van, Maintenance	1
Communications Jammer, HF*	3	Trailer, Generator	7
Proximity Fuze Jammer, SPR-1/2	9	Trailer, Water (900-Litters)	1
Truck, Light	2	Radios:	
		VHF, Vehicle Mount, Med-Power	22
		HF, Vehicle Mount, Med-Power	1
		Warning Receiver	1

* Some units may have older van mounted jammers rather than these versions mounted on modified MT-LBu armored, tracked vehicles.

RPV SQUADRON

(RECON AND EW BATTALION)



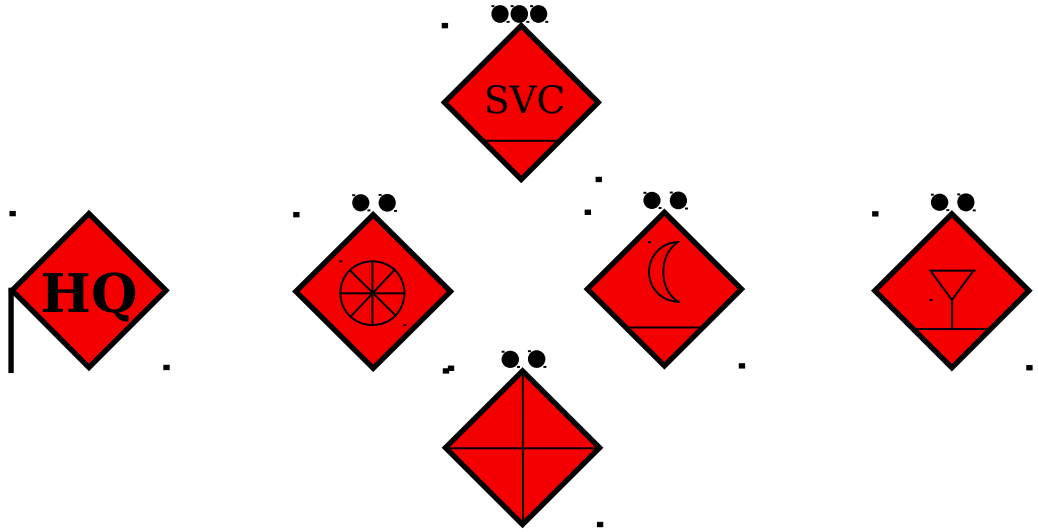
PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total
RPV Launch Vehicle	4
RPV, Marula	8
RPV Recovery Vehicle	2
Launcher Support Vehicle	
Van, Mission Control	1
SAM, SA-14/16	6
Truck, Utility	4
Truck, Light	2
Truck, Medium	1
Truck, POL (5,000-Liters)	1
Van, Maintenance	1

Equipment	Total
Trailer, Generator	5
Trailer, POL (4,200-Liters)	1
Trailer, Water (900-Liters)	1
Radios:	4
VHF, Manpack, Low-Power	13
VHF, Vehicle Mount, Medium-Power	4
HF, Vehicle Mount, Medium,-Power	1
Warning Receiver	1

SUPPLY AND SERVICE PLATOON

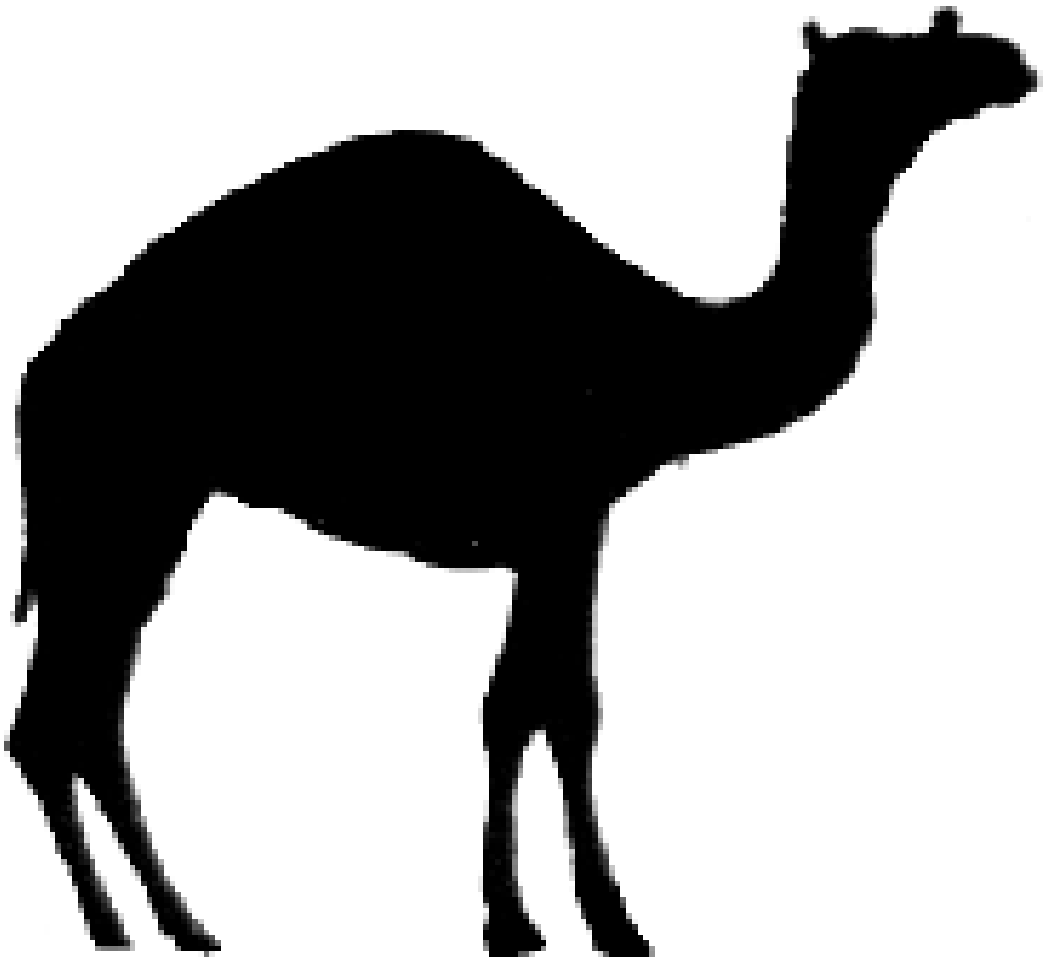
(RECON AND EW BATTALION)



PRINCIPLE ITEMS OF EQUIPMENT

Equipment	Total	Equipment	Total
9mm Pistol, PM	1	Trailer, Kitchen	3
AK-47	30	Trailer, POL (4,200-Litters)	3
Truck, Utility	1	Trailer, POL (1,200-Litters)	1
Truck, Light	4	Trailer, Water (900-Litters)	1
Truck, Medium	4	NVG	3
Truck, POL (5,000-Liters)	3	Night Sight (Small Arms)	6
Van, Kitchen	1	Radios:	
Ambulance	2	VHF, Manpack, Low-Power	3
Trailer, Cargo, 1-Axle	2	VHF, Portable, Low-Power	1
Trailer, Generator	1		

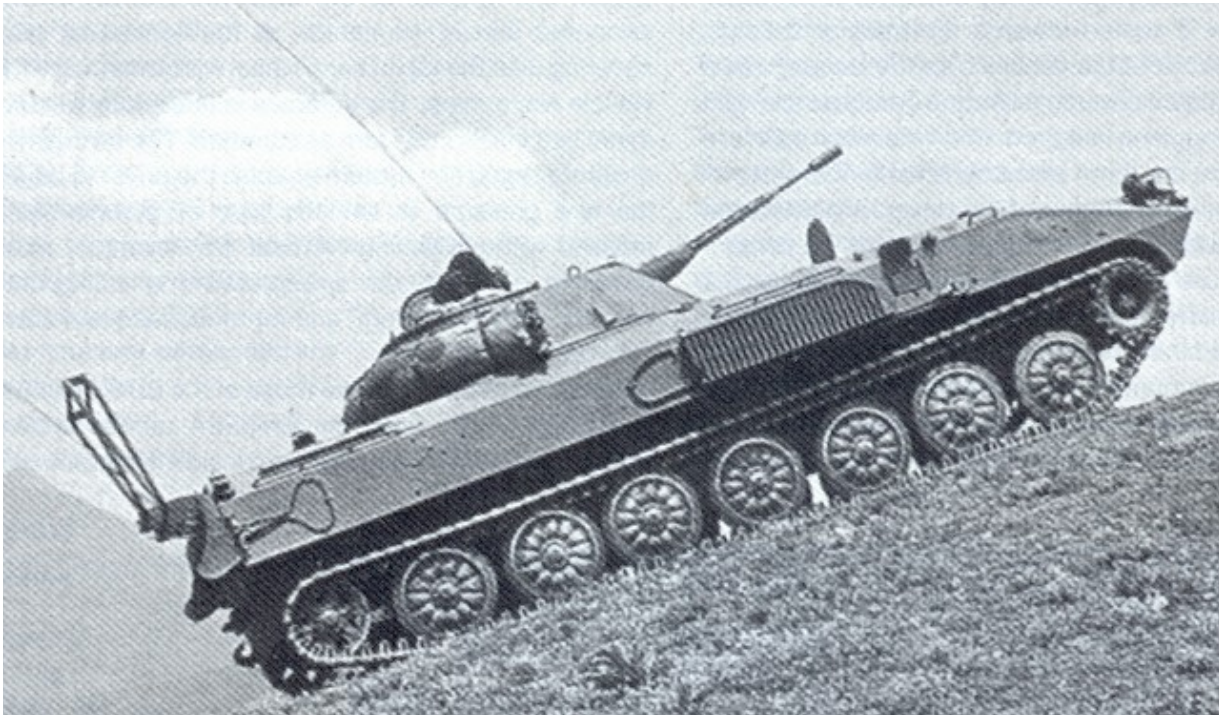
Chapter 3
Equipment



CASCAVEL EE-9
RECONNAISSANCE VEHICLE

CREW	3
LENGTH	5.2m
WIDTH	2.6m
HEIGHT	2.4m
COMBAT WEIGHT	13.4 tons
MAXIMUM ROAD SPEED	100km/hr
RANGE WITH INTEGRAL FUEL	880km
MAXIMUM TRENCH WIDTH CROSSING	N/A
MAXIMUM VERTICAL OBSTACLE CROSSING	0.6m
DIAMETER OF MAIN GUN	90mm
ROUNDS OF MAIN GUN AMMUNITION	44
TYPES OF AMMUNITION	APFSDS HE/HEAT HESH
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+15deg /-8deg
EFFECTIVE RANGE OF MAIN GUN	1,000 – 1,200m

BRM-23
RECONNAISSANCE VEHICLE



CREW	5
LENGTH	7.3m
WIDTH	3.1m
HEIGHT	2.5m
COMBAT WEIGHT	15.2 tons
MAXIMUM ROAD SPEED	62km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.5m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.8m
DIAMETER OF MAIN GUN	23mm
ROUNDS OF MAIN GUN AMMUNITION	600
TYPES OF AMMUNITION	AP-I
	HE-I
EFFECTIVE RANGE OF MAIN GUN	800 – 1,000m

BRDM-2
RECONNAISSANCE VEHICLE

CREW	4
TROOPS	2
LENGTH	5.7m
WIDTH	2.3m
HEIGHT	2.3m
COMBAT WEIGHT	7.0 tons
MAXIMUM ROAD SPEED	100km/hr
RANGE WITH INTEGRAL FUEL	750km
MAXIMUM TRENCH WIDTH CROSSING	1.2m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m
DIAMETER OF MAIN GUN	14.5mm KPVT
ROUNDS OF MAIN GUN AMMUNITION	500
TYPES OF AMMUNITION	AP-I API-T HEI
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+30deg /-5deg
MAXIMUM RATE OF FIRE	Cyclic 600 rpm Practical 150 rpm
EFFECTIVE RANGE OF MAIN GUN	800-1,000m
NIGHT VISION EQUIPMENT	Driver: TVN-2 passive image intensify 60m range/34deg FOV KPVT can be fitted with a PPN-2 night sight with a 400m range

BRDM-2 w/AT-3 SAGGER RECONNAISSANCE VEHICLE

CREW	2-3
LENGTH	5.7m
WIDTH	2.3m
HEIGHT	2.3m
COMBAT WEIGHT	7 tons
MAXIMUM ROAD SPEED	100km/h
RANGE WITH INTEGRAL FUEL	750km
MAXIMUM TRENCH WIDTH CROSSING	1.2m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m
ROUNDS OF ANTI-TANK GUIDED WEAPONS CARRIED	6 ready-launch 8 reloads in vehicle 180 sec reload time
MAXIMUM RATE OF FIRE	1 missile every 25 sec
EFFECTIVE RANGE OF AT-3 SAGGER	2,500-3,000m
GUIDANCE METHOD	MCLOS wire (AT-3b) SACLOS wire (AT-3c)

BRDM-2 w/AT-5 SPANDREL RECONNAISSANCE VEHICLE

CREW	2-3
LENGTH	5.7m
WIDTH	2.3m
HEIGHT	2.3m
COMBAT WEIGHT	7 tons
MAXIMUM ROAD SPEED	100km/h
RANGE WITH INTEGRAL FUEL	750km
MAXIMUM TRENCH WIDTH CROSSING	1.2m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m
ROUNDS OF ANTI-TANK GUIDED WEAPONS CARRIED	5 ready-launch 10 reloads in vehicle 25 sec reload time
MAXIMUM RATE OF FIRE	1 missile every 20 sec
EFFECTIVE RANGE OF AT-5 SPANDREL	3,000-4,000m
GUIDANCE METHOD	SACLOS wire

BMP-2
INFANTRY FIGHTING VEHICLE

CREW	3
TROOPS	7
LENGTH	6.7m
WIDTH	3.1m
HEIGHT	2.4m
COMBAT WEIGHT	14.6 tons
MAXIMUM ROAD SPEED	65km/hr
RANGE WITH INTEGRAL FUEL	600km
MAXIMUM TRENCH WIDTH CROSSING	2.5m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.7m
DIAMETER OF MAIN GUN	30mm
ROUNDS OF MAIN GUN AMMUNITION	500
TYPES OF AMMUNITION	160 AP-T 340 HE-T
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+74deg /-5deg
MAXIMUM RATE OF FIRE	500rpm
EFFECTIVE RANGE OF MAIN GUN	1,000m
ANTI-TANK GUIDED WEAPONS	AT-5 SPANDREL 4,000m range 4 total rounds 25-35 sec reload SACLOS guidance
NIGHT VISION EQUIPMENT	Commander: TKN-3 active IR/passive image intensify 400m range/10deg FOV Gunner: BPK-1-42 active IR/passive image intensify 350m range/650m range

M-80AK
INFANTRY COMBAT VEHICLE

CREW	3
TROOPS	7
LENGTH	6.4m
WIDTH	2.6m
HEIGHT	2.6m
COMBAT WEIGHT	14.5 tons
MAXIMUM ROAD SPEED	60km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.2m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.8m
DIAMETER OF MAIN GUN	30mm
ROUNDS OF MAIN GUN AMMUNITION	300-400
TYPES OF MAIN GUN AMMUNITION	AP-T and HE-T
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+65deg/-10deg
MAXIMUM RATE OF FIRE	500rpm
EFFECTIVE RANGE OF MAIN GUN	1,000m
ANTI-TANK GUIDED WEAPONS	AT-3 SAGGER
	3,000m range
	guidance MCLOS (AT-3b)
	guidance SACLOS (AT-3c)
	2 ready-launch, 4 reloads in hull
	1 fired every 25 sec, 60 sec reload time
OPTICS/NIGHT VISION EQUIPMENT	Turret equipped with day sight (1.1x and 40degFOV)
	And night sight (range 800m 7.3x and 7degFOV)

BTR-60PU
COMMAND VEHICLE

CREW	2 + 8
LENGTH	7.6m
WIDTH	2.8m
HEIGHT	2.2m
COMBAT WEIGHT	11.0 tons
MAXIMUM ROAD SPEED	80km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.0m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m

NOTES: This is essentially a BTR-60P fitted internally with seats for the command staff, mapboards and additional communications equipment. The communications equipment typically includes Russian R-130 HF, R-107 HF/VHF, R-123 HF/VHF, R-126 HF/VHF, and R-311 HF radios. External antennas include NATO code-name Clothes Line (a “ring” around the vehicle’s roof, hence the name) and a telescoping Top Ball that can be extended to 20-30ft.

BTR-70
ARMORED PERSONNEL CARRIER

CREW	2 + 8
LENGTH	7.85m
WIDTH	2.8m
HEIGHT	2.45m
COMBAT WEIGHT	11.0 tons
MAXIMUM ROAD SPEED	80km/hr
RANGE WITH INTEGRAL FUEL	450km
MAXIMUM TRENCH WIDTH CROSSING	2.0m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m
DIAMETER OF MAIN GUN	14.5mm
MAXIMUM RATE OF FIRE	650rpm
MAXIMUM EFFECTIVE RANGE	2,000m
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	-5/30

BTR-80A
ARMORED PERSONNEL CARRIER

CREW	3+7	
LENGTH		
WIDTH		
HEIGHT		
COMBAT WEIGHT	2.41m	
MAXIMUM ROAD SPEED		80km
RANGE WITH INTEGRAL FUEL		600k
MAXIMUM TRENCH WIDTH CROSSING		2.0m
MAXIMUM VERTICAL OBSTACLE CROSSING		0.5m
DIAMETER OF MAIN GUN	30mm	
MAXIMUM RATE OF FIRE		330r
MAXIMUM EFFECTIVE RANGE	2,500m	
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	-4/+60	

T-72A
MAIN BATTLE TANK

CREW	3
LENGTH	7.0m
WIDTH	3.6m
HEIGHT	2.4m
COMBAT WEIGHT	41 tons
MAXIMUM ROAD SPEED	60km/h
RANGE WITH INTEGRAL FUEL	480km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.85m
DIAMETER OF MAIN GUN	125mm
ROUNDS OF MAIN GUN AMMUNITION	39
TYPES OF AMMUNITION	12 HVAPFSDS 6 HEAT-FS 22 HE-FS
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+18deg /-5deg
MAXIMUM RATE OF FIRE	6-8 rpm
EFFECTIVE RANGE OF MAIN GUN	2,100m (HVAPFSDS) 2,300m (HE-FS)
INDIRECT FIRE RANGE	9,400m (HE-FS)
NIGHT VISION EQUIPMENT	Commander: TKN-3 active IR/passive image intensify 400m range/10deg FOV Gunner: TPN-1 active IR/passive image intensify 800m range/6deg FOV Driver: TVN-2 active IR/passive image intensify 60m range/34deg FOV

T-72S ERA (EXPLOSIVE REACTIVE ARMOR) MAIN BATTLE TANK

CREW	3
LENGTH	7.0m
WIDTH	3.6m
HEIGHT	2.4m
COMBAT WEIGHT	42 tons
MAXIMUM ROAD SPEED	60km/h
RANGE WITH INTEGRAL FUEL	480km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.85m
DIAMETER OF MAIN GUN	125mm
ROUNDS OF MAIN GUN AMMUNITION	39
TYPES OF AMMUNITION	12 HVAPFSDS, 6 HEAT-FS, 22 HE-FS
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+18deg/-5deg
MAXIMUM RATE OF FIRE	6-8 rpm
EFFECTIVE RANGE OF MAIN GUN	2,100m (HVAPFSDS) 2,300m (HE-FS)
INDIRECT FIRE RANGE	9,400m (HE-FS)
NIGHT VISION EQUIPMENT	Commander: TKN-3 active IR/passive image intensify 400m range/10deg FOV Gunner: TPN-1 active IR/passive image intensify 800m range/6deg FOV Driver: TVN-2 active IR/passive image intensify 60m range/34deg FOV

T-80U
MAIN BATTLE TANK

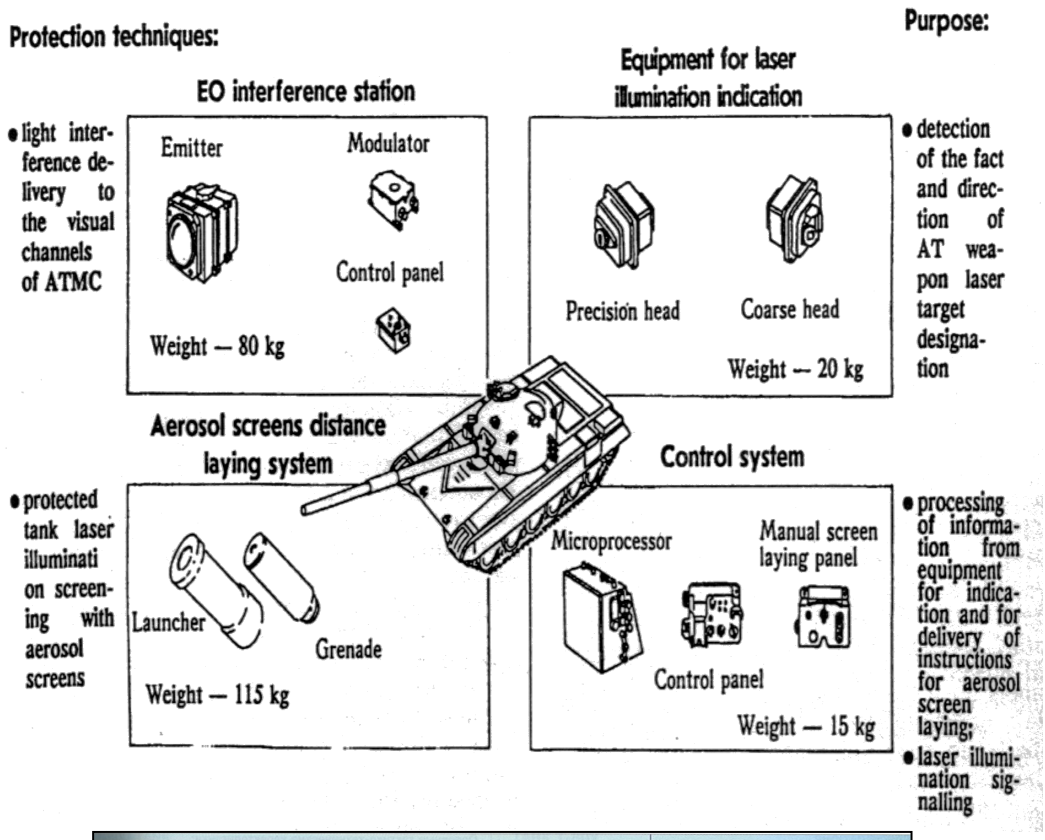
CREW	3
LENGTH	7.4m
WIDTH	3.4m
HEIGHT	2.2m
COMBAT WEIGHT	42tons
MAXIMUM ROAD SPEED	70km/h
RANGE WITH INTEGRAL FUEL	450km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	1.00m
DIAMETER OF MAIN GUN	125mm
ROUNDS OF MAIN GUN AMMUNITION	39 (33 standard tank, 6 ATGW)
TYPES OF AMMUNITION	12 HVAPFSDS, 6 HEAT-FS, 15 HE-FS, 6 ATGW
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+18deg /-5deg
MAXIMUM RATE OF FIRE	6-8 rpm
EFFECTIVE RANGE OF MAIN GUN	2,100m (HVAPFSDS) 2,300m (HE-FS) 5,000m (AT-11 Sniper 9M119 Refleks semi-auto laser-guided ATGW)
INDIRECT FIRE RANGE	9,400m (HE-FS)
NIGHT VISION EQUIPMENT	Commander: PKN-4S active IR/passive image intensify 400m range/10deg FOV Gunner: Buran-PA stabilized active IR/passive image intensify 800m range/6deg FOV Driver: TNPO-160/TVNE-4B active IR/passive image intensify 60m range/34deg FOV

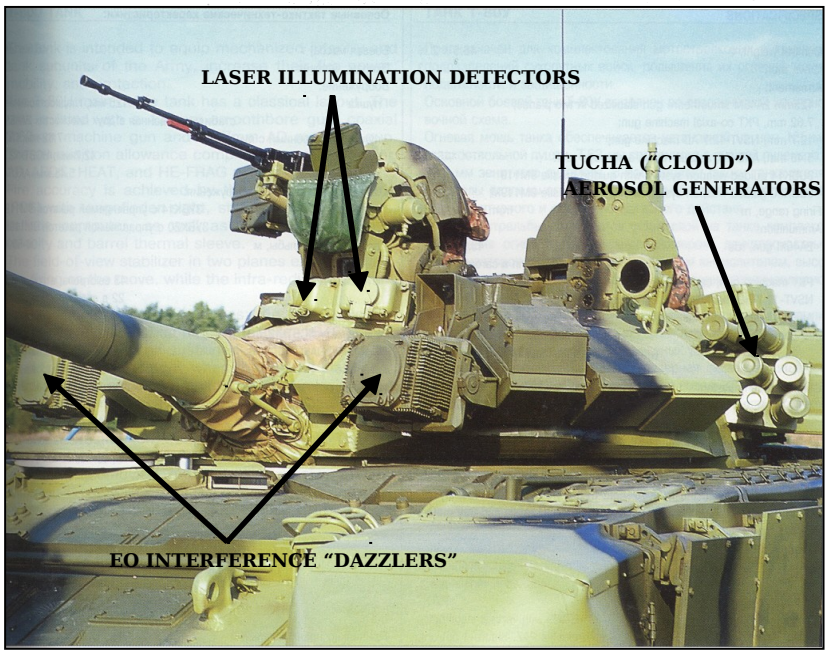
T-90 MAIN BATTLE TANK

CREW	3
LENGTH	6.9m
WIDTH	3.8m
HEIGHT	2.3m
COMBAT WEIGHT	44 tons
MAXIMUM ROAD SPEED	60km/h
RANGE WITH INTEGRAL FUEL	550km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.85m
DIAMETER OF MAIN GUN	125mm
ROUNDS OF MAIN GUN AMMUNITION	43 (37 standard tank, 6 ATGW)
TYPES OF AMMUNITION	12 HVAPFSDS, 6 HEAT-FS, 19 HE-FS, 6 ATGW
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+18deg /-5deg
MAXIMUM RATE OF FIRE	6-8 rpm
EFFECTIVE RANGE OF MAIN GUN	2,100m (HVAPFSDS) 2,300m (HE-FS) 5,000m (AT-11 Sniper 9M119 Refleks semi-auto laser-guided ATGW
INDIRECT FIRE RANGE	9,400m (HE-FS)
NIGHT VISION EQUIPMENT	Commander: TKN-3 active IR/passive image intensify 400m range/10deg FOV Gunner: TPN-1 active IR/passive image intensify 800m range/6deg FOV Driver: TVN-2 active IR/passive image intensify 60m range/34deg FOV

SPECIAL T-90 VERSION NOTES: The T-90 is a further development of the T-72 and entered low rate Production in 1994. The vehicle incorporates the T-80U turret Features including the Agava fire control system to the T-72 chassis. The T-90 incorporates Kontakt-5 applique, the Shtora tank protection System, and the Tucha ("cloud") aerosol cloud generation system to Defeat enemy laser seekers and designation systems. The Shtora Optronic jamming system has two optronic infra-red illuminators That produce spurious IR coded pulse signals that jam the IR Guidance of enemy ATGMs.

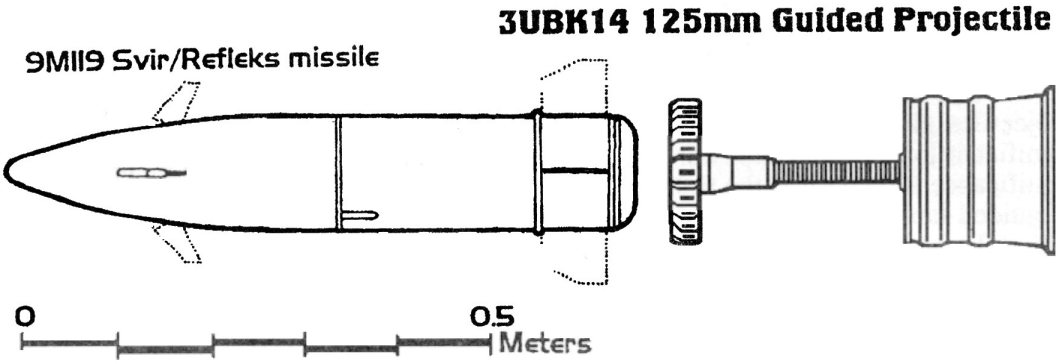
STRUCTURE OF COMPLEX SHTORA-1


Protection techniques:
Purpose:
EO interference station
Emitter
Modulator
Control panel
Weight — 80 kg
• light interference delivery to the visual channels of ATMC
Equipment for laser illumination indication
Precision head
Coarse head
Weight — 20 kg
• detection of the fact and direction of AT weapon laser target designation
Aerosol screens distance laying system
Launcher
Grenade
Weight — 115 kg
• protected tank laser illuminati on screening with aerosol screens
Control system
Microprocessor
Manual screen laying panel
Control panel
Weight — 15 kg
• processing of information from equipment for indication and for delivery of instructions for aerosol screen laying;
• laser illumination signalling



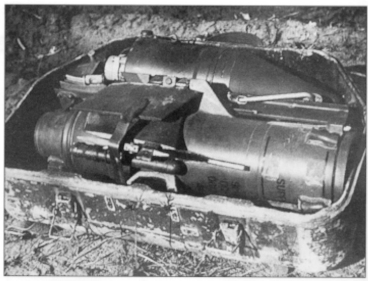
SPECIAL ERA VERSION NOTES: Typically referred to as the T-72S version, this example is an export Version of the standard T-72B. The T-72S has a different ERA Package than other former Soviet types with only 155 Kontakt ERA blocks instead of the usual 227. Because of this additional Armor protection, the T-72S can substantially reduce the penetration Of a HEAT warhead when fired directly at the front of the tank. Also, the T-72S is capable of firing the 9M119 125mm laser-guided Projectile (NATO code-name AT-11 "Sniper") that has a range of 4,000m.

AT-11 SNIPER



ATGM RIDES IN CENTER OF LASER
"FUNNEL" PROVIDED BY GUNNER'S
1K13 LASER SIGHT
TYPICAL LOAD OF SIX
80% HIT PROBABILITY/HEAT WARHEAD/4,000m RANGE

AT-3b "SAGGER-B"
MAN-PORTABLE ANTI-TANK GUIDED MISSILE



CREW	3 1 carries joystick control unit and peiscopic sight 2 each carries one "suitcase" containing one AT-3b Sagger-B missile and one Baseplate launcher platform
LENGTH	0.86m
DIAMETER	120mm
WEIGHT	23.0 lbs
SET-UP TIME	5 min
GUIDANCE	MCLOS via wire
EFFECTIVE RANGE	300-3,000m
VELOCITY	150 m/sec
TIME OF FLIGHT TO MAX RANGE	20 sec
RATE OF FIRE	1 missile every 25 sec

AT-4 “SPIGOT”

- **Crew**: 3
- **Mounting**: Ground on folding tripod
- **Alternate Mounts**: Pintel (post) on BMP-2, BTR-D, UAZ-469, BRDM.
- **Rate of Launch (missiles/min)**: 2-3, depending on range
- **Time of Flight to Max Range** (sec): 11
- **Minimum/Maximum Range** (m): 70/2,000
- **Probability of Hit** (%): 90
- **Average Velocity** (m/s): 186
- **Warhead Type Shaped Charge: (HEAT)**
- **Ready/Stowed Missiles** 4/0 full dismount, 4/4 on near vehicle or
- **Missile Weight (kg)** 13.0 (in tube)

AT-5 “SPANDREL”

CREW	2
LENGTH	1.2m
DIAMETER	135mm
WEIGHT	32.0 lbs
SET-UP TIME	3-5 min
GUIDANCE	SACLOS via wire
EFFECTIVE RANGE	75-4,000m
VELOCITY	200 m/sec
TIME OF FLIGHT TO MAX RANGE	20 sec
RATE OF FIRE	1 missile every 25 sec
LAUNCHER DETAILS	9P135M3 launcher has thermal imager for night Sighting out to range of 2,500m. Also, launcher Rail is able to be elevated to 30deg, which allows Engagement of hovering helicopters to 1,000m Altitude out to maximum range.

2S1
SELF-PROPELLED ARTILLERY

CREW	4
LENGTH	7.3m
WIDTH	2.8m
HEIGHT	2.7m
COMBAT WEIGHT	16 tons
MAXIMUM ROAD SPEED	60km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.9m
DIAMETER OF MAIN GUN	122mm
ROUNDS OF MAIN GUN AMMUNITION	40
TYPES OF AMMUNITION	HE, HE-RAP, CHEMICAL, ILLUM, AMOKE, and AP-T
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+70deg /-3deg
TURRET TRAVERSE	360deg
MAXIMUM RATE OF FIRE	6 rpm
EFFECTIVE RANGE OF MAIN GUN	15.3 km HE, 21.9 km HE-RAP
DIRECT FIRE RANGE	800m
EMPLACEMENT TIME	3-5min

2S3
SELF-PROPELLED ARTILLERY

CREW	4
LENGTH	7.8m
WIDTH	3.2m
HEIGHT	2.8m
COMBAT WEIGHT	30 tons
MAXIMUM ROAD SPEED	60km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	3.0m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.9m
DIAMETER OF MAIN GUN	152mm
ROUNDS OF MAIN GUN AMMUNITION	46
TYPES OF AMMUNITION	HE-FRAG, VRS-546 VHF radio jammer cargo projectile, NUCLEAR (2Kt yield), NORINCO Type 66 cargo projectile, CHEMICAL, IMI DP-ICM M351, ICM with 3-O-13 bomblets, HE-RAP (24 km range), ILLUM and SMOKE, AP-T, Krasnopl Laser-guided projectile

MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+60deg /-4deg
TURRET TRAVERSE	360deg
MAXIMUM RATE OF FIRE	4 rpm
EFFECTIVE RANGE OF MAIN GUN	17 – 18.5km HE-FRAG
DIRECT FIRE RANGE	800m
EMPLACEMENT TIME	3-5min

2S9
SELF-PROPELLED MORTAR

CREW	4
LENGTH	6.0m
WIDTH	2.6m
HEIGHT	2.3m
COMBAT WEIGHT	9 tons
MAXIMUM ROAD SPEED	60km/h
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	1.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.8m
DIAMETER OF MORTAR	120mm
ROUNDS OF MORTAR AMMUNITION	25
MAXIMUM ELEVATION/DEPRESSION OF MORTAR	+80deg /-4deg
TURRET TRAVERSE	+/-35deg from direct front
MAXIMUM RATE OF FIRE	6-8 rpm
EFFECTIVE RANGE OF MORTAR	8.8km (13km RAP)

BM-21
MULTIPLE ROCKET LAUNCHER

CREW	6
DIAMETER OF ROCKET	122mm
LENGTH OF ROCKET	3.2m
STABILIZATION FOR FLIGHT	Fin & spin
NUMBER OF TUBES	40
RATE OF FIRE	40 rds in 20 sec
RELOAD TIME	8 min
ELEVATION	0-55 deg
TRAVERSE	120 deg left/60 deg right From direct front of Vehicle
TIME INTO ACTION	2.5 min
MAXIMUM RANGE OF ROCKET	20.5km
WARHEAD TYPES	HE-FRAG, smoke, Incendiary, chemical
LAUNCHER VEHICLE	Ural-375 (6x6 heavy truck)
LENGTH	7.4m
WIDTH	2.7m
HEIGHT	2.8m
WEIGHT	14.0 tons
MAXIMUM SPEED	80km/hr
MAXIMUM RANGE	1,000km
TRENCH WIDTH CROSSING	0.9m
VERTICAL OBSTACLE CROSSING	0.6m

FROG-7
SURFACE-TO-SURFACE MISSILE

CREW	4-6
LENGTH	9.4m
DIAMETER	0.55m
WEIGHT	2.7 tons
MAXIMUM RANGE	70km
MINIMUM RANGE	15km
WARHEAD TYPES	HE, cluster, chemical, nuclear (up to 200kT yield)
GUIDANCE	None
STABILIZATION	Fins
TIME TO MAXIMUM RANGE	160 sec
PREPARATION TIME TO FIRE	15-30 min
RELOAD TIME	20 min
TEL VEHICLE	BAZ-135L4 (8x8)
LENGTH	10.7m
WIDTH	2.8m
HEIGHT	3.4m
WEIGHT	20.0 tons
MAXIMUM SPEED	65km/hr
RANGE	650km
TRENCH WIDTH CROSSING	2.6m
VERTICAL OBSTACLE CROSSING	0.7m
ELEVATION	+15 - +65 deg when firing
TRAVERSE	-7 - +7 deg from Direct front of vehicle
RADARS	NATO code-name "End Tray" meteorological radar system D-band (1-2 GHz)

ACRV-2
ARTILLERY COMMAND
AND
RECONNAISSANCE VEHICLE

CREW	5
LENGTH	6.3m
WIDTH	2.8m
HEIGHT	2.3m
COMBAT WEIGHT	14.0 tons
MAXIMUM ROAD SPEED	60km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	1.1m

NOTES: This is a battalion or battery command observation post vehicle, with manual fire direction equipment. The turret is fitted with a 1D11M-1 laser rangefinder and carries a dismountable laser rangefinder designated DAK-1 (NATO code-name Sage Gloss). Chassis is based on lower chassis of 2S1 SP arty piece. This vehicle is usually deployed in the form of one per 2S1 or 2S3 battery. The ACRV-2 typically works in conjunction with other vehicle-mounted target-acquisition systems, such as the SNAR-10, in order to increase responsiveness to artillery fire missions.

GHN-45
TOWED HEAVY ARTILLERY PIECE

CREW	6
BORE DIAMETER	155mm
BARREL LENGTH	7.0m
MUZZLE BRAKE	Multi-baffle
CARRIAGE TYPE	Split trail
TOTAL WEIGHT	11.0 tons
LENGTH (travelling)	9.7m
(firing)	11.4m
WIDTH (travelling)	2.5m
(firing)	9.9m
HEIGHT (travelling)	2.1m
ELEVATION/DEPRESSION	+72deg /-5deg
TRAVERSE (left/right)	30deg /40deg
RANGE	ERFB 30,300m
	ERFB-BB 39,600m
RATE OF FIRE	Normal 2 rpm
	Maximum 7 rpm
	Burst 3 rds in 16 sec
EMPLACEMENT TIME	5-7 min
AMMUNITION TYPES	HE,WP,Illum,Smoke
PRIME MOVER	6 x 6 heavy truck

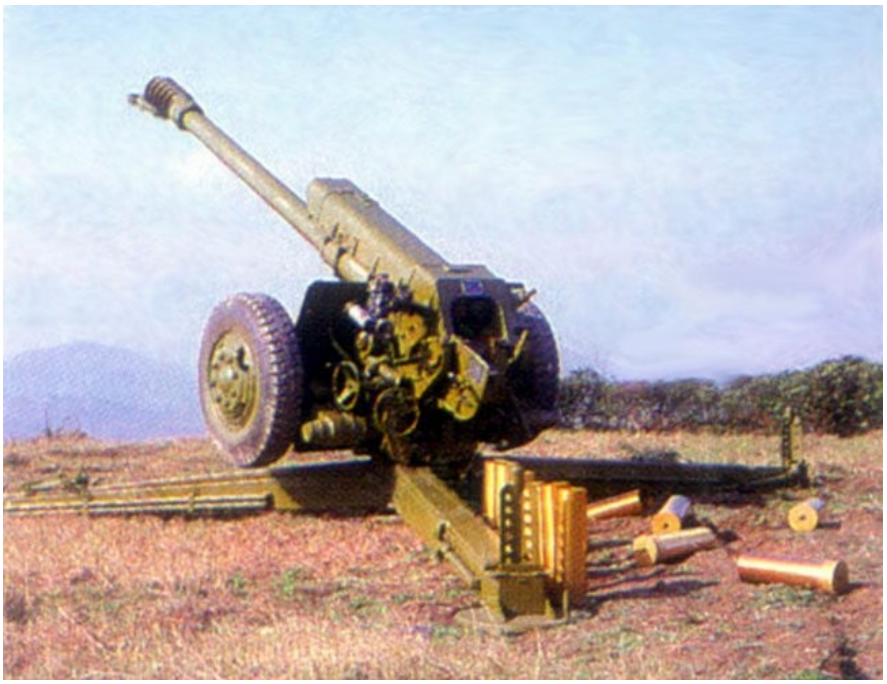
G5
TOWED HEAVY ARTILLERY PIECE

CREW		5
BORE DIAMETER		155mm
BARREL LENGTH		7.0m
MUZZLE BRAKE		single-baffle
CARRIAGE TYPE		Split trail with APU
TOTAL WEIGHT		14.0 tons
LENGTH (firing)		11.0m
WIDTH (firing)		8.7m
ELEVATION/DEPRESSION		+77deg /-3deg
TRAVERSE (left/right)		65 deg from center
RANGE	ERFB 30,000m	ERFB-BB 39,000m
RATE OF FIRE		Normal 2 rpm
		Maximum 3 rpm
EMPLACEMENT TIME		5-7 min
AMMUNITION TYPES		HE, WP, Illum, Smoke, cargo, radar chaff, leaflet
PRIME MOVER		SAMIL 100 6 x 6 heavy truck

D-20
TOWED HEAVY ARTILLERY PIECE

CREW	10
BORE DIAMETER	152mm
BARREL LENGTH	5.2m
MUZZLE BRAKE	Double baffle
CARRIAGE TYPE	Split trail
TOTAL WEIGHT	5.7 tons
LENGTH (travelling)	8.4m
WIDTH (travelling)	2.2m
HEIGHT (travelling)	2.3m
ELEVATION/DEPRESSION	+63deg /-5deg
TRAVERSE (left/right)	30deg /30deg
RANGE	HE-FRAG 17,400m
	HE-RAP 24,000m
POINT-BLANK DIRECT FIRE RANGE	800m
RATE OF FIRE	Normal 2 rpm
	Maximum 5-6 rpm
EMPLACEMENT TIME	2-3 min
AMMUNITION TYPES	HE, HEAT, Illum, Smoke
	Tactical nuclear (0.2kT yield)
	Scatterable mines (anti-tank and Anti-personnel)
	Semi-active laser (Krasnopol)
	Chemical
PRIME MOVER	6 x 6 heavy truck

D-30
TOWED ARTILLERY PIECE

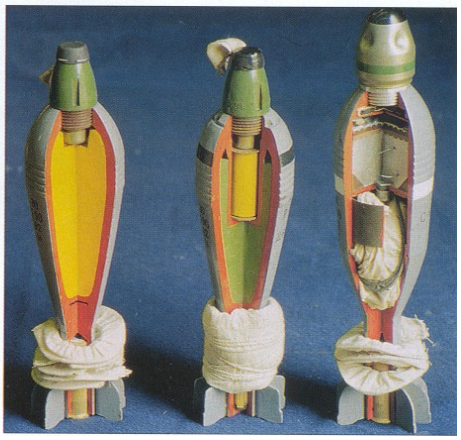


CREW	7
BORE DIAMETER	122mm
BARREL LENGTH	4.9m
MUZZLE BRAKE	Multi-baffle
CARRIAGE TYPE	Multi-split 3 trail
TOTAL WEIGHT	3.3 tons
LENGTH (travelling)	5.4m
WIDTH (travelling)	2.0m
HEIGHT (travelling)	1.7m
ELEVATION/DEPRESSION	+70deg /-7deg
TRAVERSE (left/right)	360deg turntable
RANGE	HE-FRAG 15,300m
	HE-RAP 21,900m
POINT-BLANK DIRECT FIRE RANGE	800m
RATE OF FIRE	Normal 4 rpm
	Maximum 7-8 rpm
EMPLACEMENT TIME	2-3 min
AMMUNITION TYPES	HE, HEAT, Illum, Smoke, Chemical
PRIME MOVER	6 x 6 heavy truck

60MM MORTAR ASSEMBLY

- Weight 42lbs
- Length 28.6in
- Muzzle Velocity (HE): 535fps
- Max Range 1000yrds effective
- Rate of Fire 18rpm nor 30-35 max

M1937
82MM MORTAR



CREW	5
BORE DIAMETER	82mm
BARREL LENGTH	1.2m
TOTAL WEIGHT	125 lbs
ELEVATION	+45deg /+85deg
TRAVERSE (left/right)	6deg
RANGE	Maximum 3,000m
	Minimum 100m
RATE OF FIRE	Maximum 15-25 rpm
EMPLACEMENT TIME	3-5 min
AMMUNITION TYPES	HE, WP
PRIME MOVER	Manpack or truck bed-loaded. Can be carried (disassembled) In crew area of BMP-2.

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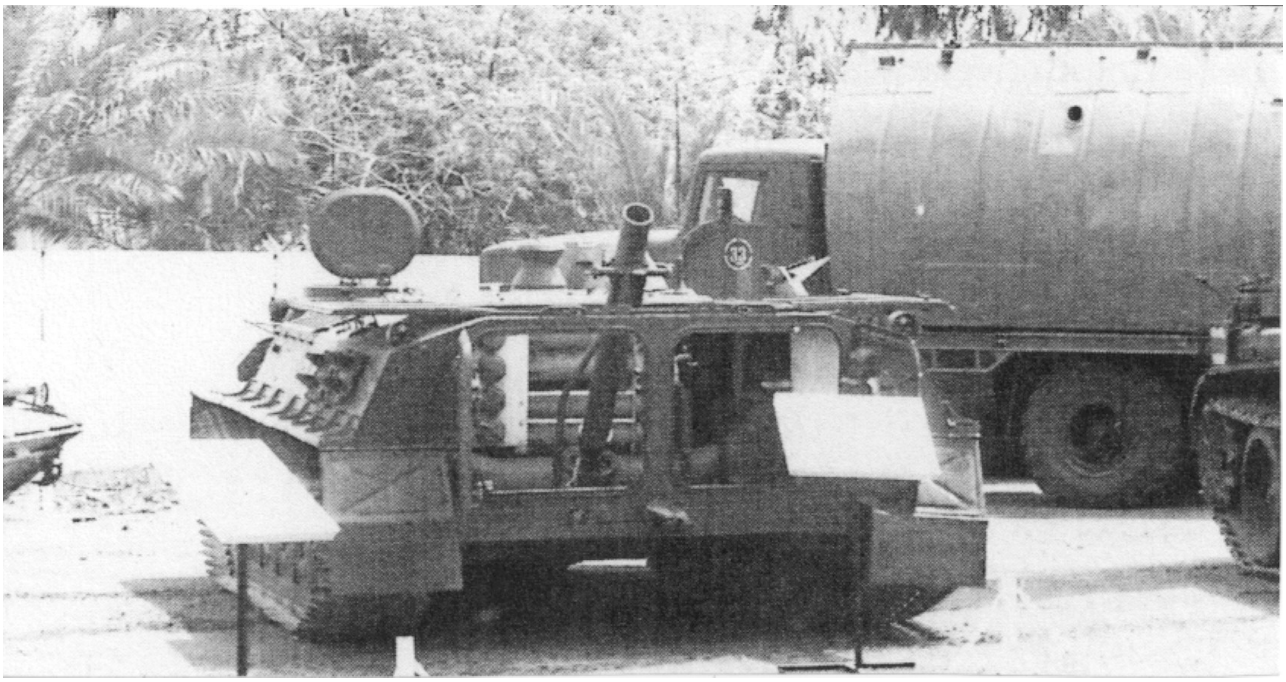
M1943
120MM MORTAR

CREW	6
BORE DIAMETER	120mm
BARREL LENGTH	1.8m
TOTAL WEIGHT	605 lbs
LENGTH (travelling)	3.5m
WIDTH (travelling)	1.8m
HEIGHT (travelling)	1.5m
ELEVATION	+45deg / +80deg
TRAVERSE (left/right)	8deg
RANGE	Maximum 5,700m
	Minimum 460m
RATE OF FIRE	Maximum 12-15 rpm
EMPLACEMENT TIME	3-5 min
AMMUNITION TYPES	HE, WP, Smoke
PRIME MOVER	ZIL-131 6 x 6 heavy truck
	MT-LB
	The M1943 can also be Bed-loaded by disassembly Into barrel, baseplate, and bipod.

MT-LB 120MM MORTAR VARIANT
MULTI-PURPOSE TRACKED VEHICLE



CREW	2+6 for mortar operation
LENGTH	6.4m
WIDTH	2.9m
HEIGHT	1.9m
COMBAT WEIGHT	12.5 tons
MAXIMUM ROAD SPEED	61.5km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.4m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.6m
DIAMETER OF MAIN GUN	PKT 7.62mm
ROUNDS OF MAIN GUN AMMUNITION	2,500
EFFECTIVE RANGE OF MAIN GUN	800m
PREPARATION TO FIRE TIME FOR MORTAR	3-5 min
NIGHT VISION EQUIPMENT	Commander: OU-3K active infra-red searchlight 400m range Driver: TVN-2 active infra-red/passive image intensify 40m range
SPECIAL MODIFICATION NOTES:	Early in 1989 an MT-LB was shown in Iraq for the first Time, with wide tracks modified locally to carry a 120mm Mortar in the rear of the vehicle. The roof hatches have been Modified and now open to either side of the hull to allow the 120mm mortar to fire to the rear. A base plate is carried on the right side of the hull to allow the mortar to be deployed away from the vehicle if required by the tactical situation. All tactical data relating to the M1943 120mm mortar remain unchanged.

ZIL-131
6 X 6 HEAVY TRUCK

CREW	3
TROOPS CAPACITY	16 (bed-loaded)
MAXIMUM PAYLOAD HAULED IN BED	5.0 tons
MAXIMUM TOW LOAD	5.0 tons
LENGTH	6.9m
WIDTH	2.6m
HEIGHT	2.8m
WEIGHT	6.7 tons
MAXIMUM SPEED	100km/hr
CRUISE RANGE	425km
TRENCH WIDTH CROSSING	0.5m
VERTICAL OBSTACLE CROSSING	0.4m

URAL-53232
8 X 8 HEAVY TRUCK

CREW	2
TROOPS CAPACITY	34 (bed-loaded)
MAXIMUM PAYLOAD HAULED IN BED	9.5 tons
MAXIMUM TOW LOAD	11.0 tons
LENGTH	8.7m
WIDTH	2.5m
HEIGHT	3.0m
WEIGHT	10.9 tons
MAXIMUM SPEED	80km/hr
CRUISE RANGE	860km
TRENCH WIDTH CROSSING	0.5m
VERTICAL OBSTACLE CROSSING	0.4m

TMK-3
DITCHING VEHICLE

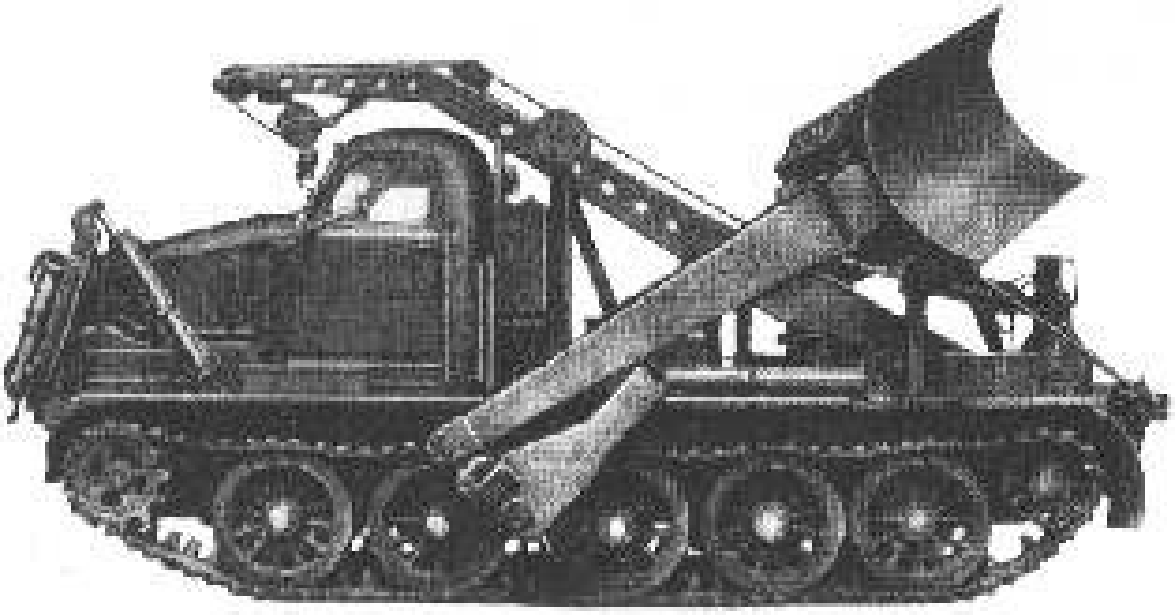
CREW	2
MAXIMUM ROAD SPEED	44km/h
LENGTH	9.7m
WIDTH	3.4m
HEIGHT	4.2m
EARTH MOVED	360-800 meters per hour
DIMENSIONS OF TRENCH DUG IN NON-FROZEN SOILS	
DEPTH	1.1-1.5m
WIDTH	0.6-1.1m
WEIGHT	22 tons

BTM-4M
DIGGER AND DITCHING VEHICLE

CREW	2
MAXIMUM ROAD SPEED	50km/h
TRENCH DIGING	0-2km/h
EARTH MOVING	4-10km/h
WORKING CAPACITY	
1.5m DEEP TRENCH	
FROZEN GROUND	250m/h
NON-FROZEN GROUND	1,000m/h
TRENCH WIDTH	0.9-1.1m
WEIGHT	43 tons

NOTES: This vehicle is based on the tracked chassis of the Russian 203mm 2S7M Malka self-propelled Gun, reworked to mount trenching/digging equipment.

BAT-M
DOZER



CREW	4
MAXIMUM ROAD SPEED	40km/h
RANGE	400km
LENGTH	10.0m
WIDTH	4.8m
HEIGHT	2.8m
WORKING SPEED	4-8km/h
EARTH MOVED	120-400 cubic meters per hour
BLADE WIDTH	4.5m

NOTES: This vehicle is based on the AT-T artillery tractor. This vehicle is used to lay out Cross-country tracks, at the rate of 4-6km/h in forested areas, and 4-10km/h in Snow-covered areas.

GMZ-3
MINE-LAYING VEHICLE

CREW	3
MAXIMUM ROAD SPEED	50km/h
RANGE	350km
LENGTH	10.3m
WIDTH	3.1m
HEIGHT	2.5m
WEIGHT	25 tons
WORKING SPEED	4-16km/h
MAXIMUM GRADIENT	30 deg
TYPE OF MINES LAID	TM-57
MINE SPACING	4-10m
MINE LAYING SPEED	
BURIED	6km/h
SURFACE	6-16km/h
MINE LAYING RATE	
BURIED	4 per minute
SURFACE	8 per minute
MINE CAPACITY	208 approx
RELOAD TIME	12-15 minutes

IRM ENGINEER AMPHIBIOUS RECONNAISSANCE VEHICLE

NOTES: The IRM is designed as a means of conducting ground reconnaissance, route reconnaissance, as well as water and mine obstacle reconnaissance. Its chassis is based on the BMP-1. Fixed and portable reconnaissance instruments carried by the vehicle make it possible to obtain information about water barriers (width, depth, current velocity, relative bottom density, presence of obstacles, thickness of ice), terrain trafficability, presence of explosive ordnance in the soil, and also conduct reconnaissance in areas contaminated with toxic or radioactive agents.

UR-77
MINEFIELD BREACHING VEHICLE

CREW	2
MAXIMUM ROAD SPEED	60km/h
CROSS-COUNTRY	30km/hr
CHARGE APPLICATION RANGE	300-500m
LANE CLEARED WIDTH	6m
LENGTH	80-90m
TIME REQUIRED TO CLEAR LANE	3-5min

NOTES: Chassis dimensions are similar to the 2S1, upon which it is based.

VS-50 ANTI-PERSONNEL MINE

LETHAL EFFECT	Blast
SHAPE	Cylindrical
HEIGHT	45mm/1.7in
DIAMETER	90mm/3.5in
TOTAL WEIGHT	0.18kg/0.37lb
MINE CASE	Plastic
COLOR	Variety, including olive drab and sand
MINE FUZE	Integral
TYPE	Pressure
ACTUATION FORCE	10kg/22lbs
MAIN EXPLOSIVE TYPE	RDX
MAIN EXPLOSIVE WEIGHT	0.043kg/0.094lb
EFFECTIVE RANGE	Limited
DETECTABILITY	Difficult with hand-held metallic detectors. Pressure plate is reinforced with non-magnetic Metal.
DETONATION UPON DEACTIVATION ATTEMPTS	Highly possible
SPECIAL NOTES	The VS-50 is a small, round, plastic-cased Italian blast mine. Although it was designed to be scattered from helicopters, It is most often encountered having been emplaced by hand, Usually buried. The mine is blast-resistant and will defeat most Explosive countermeasures, including explosive line charges And fuel air explosives.

VALMARA 69 ANTI-PERSONNEL MINE

LETHAL EFFECT	Bounding fragmentation
SHAPE	Cylindrical
HEIGHT	205mm/8.1in
DIAMETER	130mm/5.1in
TOTAL WEIGHT	3.3kg/7.3lbs
MINE CASE	Plastic
COLOR	Green and sand brown
FUZE TYPE	Trip wire, pressure
ACTUATION FORCE	6-10kg/13.2-22lbs
MAIN EXPLOSIVE TYPE	Composition B
MAIN EXPLOSIVE WEIGHT	0.597kg/1.3lbs
EFFECTIVE RANGE	27m/84ft
DETECTABILITY	Readily detectable due to metal fragmentation. Pressure plate is reinforced with non-magnetic Metal.
DETONATION UPON DEACTIVATION ATTEMPTS	Highly probable. There is A secondary fuze well on the bottom of the Mine for booby-trap purposes.

SPECIAL NOTES

The Valmara 69 is an Italian, bounding fragmentation mine that Is the successor to the Valmara 59. The main difference is the Outer body material, which is plastic as opposed to sheet steel Found in the Valmara 59. The minor changes to the Valmara 69 Have been incorporated to reduce cost, not enhance performance. The mines function similarly, through direct pressure or by tension To an attached tripwire. When the fuze is functioned, the propelling Charge is initiated, launching the inner case into the air. The main charge Is then detonated at a predetermined height by the anchoring lanyard.

TM-57 METALLIC ANTI-TANK MINE

NOTES: The TM-57 metal-cased mine is similar in appearance to the now obsolete TM-46, but it incorporates a larger charge (7kg of TNT) and uses improved fuzing. There is no anti-handling fuze well at the underside of the mine because it is designed to be laid by mechanical minelayers. The TM-57 uses the MVZ-57 delay armed pressure fuze, although it can be used with the MVSh-57 tilt-rod fuze when it is emplaced by hand. Upon activation, the HE can break the track of an armored vehicle.

OZM-3 BOUNDING FRAGMENTATION ANTI-PERSONNEL MINE

NOTES: The OZM-3 has a cylindrical metal case. It has two electrical lead wires protruding from the top, a wing-shaped fin, and a fuze well to accept a threaded fuze. The mine contains 0.075 kilograms of TNT as the main charge in addition to a separate propelling charge at the base of the mine. The mine's lethal radius is 25 meters.

The electrical leads on the OZM-3 allow it to be command detonated for use in ambushes, but it can also be employed in conventional minefields. Mechanical fuzing is accomplished through the use of the MUV-2 pull fuze inserted into the fuze well.

The OZM-3 mine does not have an inner and outer mine case like the U.S. M16A2 (Bouncing Betty) mine. The hole in which the mine is emplaced acts as the outer projectile tube. When activated, the propelling charge propels the mine to a height of about one meter, as determined by the tether wire, where it detonates. Although this is primarily an anti-personnel mine, it is also capable of disabling thin-skinned vehicles.

AK-47
ASSAULT RIFLE

CALIBER	7.62mm
BARREL LENGTH	16.3 in
WEIGHT (LOADED)	10.6 lbs
OVERALL LENGTH	34.2 in
CYCLIC RATE OF FIRE	600 rpm
PRACTICAL RATE OF FIRE (AUTO)	100 rpm
PRACTICAL RATE OF FIRE (SEMI-AUTO)	40 rpm
MAXIMUM RANGE	800 m
MAXIMUM EFFECTIVE RANGE (AUTO)	200 m
MAXIMUM EFFECTIVE RANGE (SEMI-AUTO)	300 m
AMMUNITION TYPES	Ball, tracer, blank, API, grenade launch
MUZZLE VELOCITY	710m/sec
CARTRIDGE	7.62 x 39 intermediate
UNIT OF FIRE	300 rounds
CARRIED BY SOLDIER	120 rounds
MAGAZINE	30 rounds

RPK 7.62MM
LIGHT PURPOSE MACHINE GUN

CREW	1
BARREL LENGTH	24.5 in
WEIGHT (LOADED)	12.9 lbs
OVERALL LENGTH	40.4 in
CYCLIC RATE OF FIRE	700 rpm
PRACTICAL RATE OF FIRE	50-80 rpm
MAXIMUM EFFECTIVE RANGE	800 m
AMMUNITION TYPES	Ball and tracer
MUZZLE VELOCITY	732m/sec
CARTRIDGE	7.62 x 39mm
OPERATION	Gas
COOLED	Air
FEED	40-round magazine or 75-round drum
REACTION TIME	1-2 sec
RELOAD TIME	2-5 sec

FN MAG 7.62MM
GENERAL PURPOSE MACHINE GUN

CREW	1-2
CALIBER	7.62mm
BARREL LENGTH	21.5 in
WEIGHT (LOADED)	23.9 lbs
OVERALL LENGTH	49.4 in
CYCLIC RATE OF FIRE	650-1000 rpm
PRACTICAL RATE OF FIRE	100 rpm
MAXIMUM EFFECTIVE RANGE	1,200 m
AMMUNITION TYPES	Ball, tracer, API
MUZZLE VELOCITY	840m/sec
CARTRIDGE	7.62 x 51mm NATO
OPERATION	Gas
COOLED	Air
FEED	Continuous-link or 50-round belts
REACTION TIME	1-3 sec
RELOAD TIME	3-7 sec

NSV 12.7MM
HEAVY MACHINE GUN

CREW	2
BARREL LENGTH	37.4 in
WEIGHT (LOADED)	55.0 lbs
OVERALL LENGTH	61.4 in
CYCLIC RATE OF FIRE	750 rpm
PRACTICAL RATE OF FIRE	90 rpm
MAXIMUM RANGE	6,000 m
MAXIMUM EFFECTIVE RANGE	1,750 m
AMMUNITION TYPES	Ball, tracer, AP-I
MUZZLE VELOCITY	845m/sec
CARTRIDGE	12.7mm x 107mm
OPERATION	Gas
COOLED	Air
FEED	Continuous-link or 60-round belts
REACTION TIME	6 sec
RELOAD TIME	15 sec
MAXIMUM SLEW RATE	90deg/sec
ELEVATION	90deg
OPTICS	When tripod mounted, the NSV utilizes a 1.7kg 6X-power Battery-operated SPP K10-T collimating optical sight, which Is suitable for air defense use. Iron sights can be used for back-up. Maximum effective range for air targets is 1,500m, while for ground Targets it is 1,750-2,000m. The NSV is the typical external machine Gun armament on the T-72 tank.

SVD DRAGUNOV 7.62MM SNIPER RIFLE

BARREL LENGTH	24.4 in
WEIGHT (LOADED)	9.9 lbs
OVERALL LENGTH	48.2 in
MAXIMUM RATE OF FIRE	30 rpm
AIMED RATE OF FIRE	4 rpm
MAXIMUM EFFECTIVE RANGE	1,300 m
MUZZLE VELOCITY	830m/sec
CARTRIDGE	7.62 x 54Rmm
OPERATION	Gas
COOLED	Air
FEED	Magazine (10 rounds)
CARRIED BY SNIPER	140 rounds

OPTICS The PSO-1 sight mounted on the SVD is basically a 4X Telescope with a 6 deg field of vision and an integral Rangefinder that is lit at night. It has an infra-red viewing Metascope that can detect infra-red light sources and can Itself be used passively or in conjunction with an infra-red Light source.

PN-9 NIGHT SIGHT

NPK-14 NIGHT VISIO

PNV-17 NIGHT SIGHT

PN-6 NIGHT VISIO

RPG-7
PORTABLE ROCKET LAUNCHER

TUBE CALIBER	40mm
PROJECTILE DIAMETER	85mm
LENGTH OF LAUNCHER	37.5 in
WEIGHT (LAUNCHER)	17.4 lbs
WEIGHT (PROJECTILE)	5.5 lbs
MUZZLE VELOCITY	120m/sec
MAXIMUM VELOCITY	300m/sec
MAXIMUM EFFECTIVE RANGE (MOVING TARGET)	300m
MAXIMUM EFFECTIVE RANGE (STATIONARY TARGET)	500m
MINIMUM RANGE	5m
RANGE TO SELF-DESTRUCTION	920m
ARMOR PENETRATION	330mm
RATE OF FIRE	4-6 rpm
OPTICS	The PGO-7 and –7V optical sights are marked with Ranges from 200m to 500m with intervals of 100m. They have a 13deg field of view with a 2.5X power Magnification. Optical sight filters can increase vision In glare, smoke, and haze, and the sight can be adjusted For temperature extremes. The sights are internally lit For night use, or can be replaced with a night sight – The NSP-2 active infra-red sight, or the PGN-1 passive Starlight scope, which amplifies exisitng light. The NSP-2 Can detect targets 150-200m away; the PGN-1 can detect Targets 300-400m away.

ZPU-4
TOWED ANTI-AIRCRAFT MACHINE GUN

CREW	5
BORE DIAMETER	14.5mm
CARRIAGE TYPE	4-wheel, 2-axle trailer
TOTAL WEIGHT	1.7 tons
LENGTH (travelling)	4.5m
WIDTH (travelling)	1.7m
HEIGHT (travelling)	2.1m
ELEVATION/DEPRESSION	+90deg/-19deg
TRAVERSE	360deg
EFFECTIVE RANGE	1,400m 1,200m for ground targets
EFFECTIVE ALTITUDE	3,000-3,900ft
RATE OF FIRE (per barrel)	Cyclic 600 rpm Practical 150 rpm
EMPLACEMENT TIME	15-20 sec
AMMUNITION TYPES	AP-I, API-T, AP-T, HEI
PRIME MOVER	GAZ-66, ZIL-131 trucks
FIRE CONTROL	Mechanical computing and reflex optical sights

M1939
TOWED ANTI-AIRCRAFT ARTILLERY

CREW	8
BORE DIAMETER	37mm
BARREL LENGTH	2.7m
CARRIAGE TYPE	4-wheel
TOTAL WEIGHT	2.2 tons
LENGTH (travelling)	6.1m
WIDTH (travelling)	1.8m
HEIGHT (travelling)	2.4m
ELEVATION/DEPRESSION	+85deg /-5deg
TRAVERSE (left/right)	360deg @61deg/sec
EFFECTIVE RANGE	2,499m
EFFECTIVE ALTITUDE	5,200-8,400ft
EFFECTIVE DIRECT-FIRE RANGE AT GROUND TARGETS	500-1,000m
RATE OF FIRE	Cyclic 160-180 rpm Practical 80 rpm
EMPLACEMENT TIME	1-2 min
AMMUNITION TYPES	AP-T, HE
PRIME MOVER	6 x 6 heavy truck
MODES OF OPERATION	Optical sights

S-60
TOWED ANTI-AIRCRAFT ARTILLERY

CREW	7
BORE DIAMETER	57mm
BARREL LENGTH	4.4m
MUZZLE BRAKE	Multi-perforated
CARRIAGE TYPE	4-wheel
TOTAL WEIGHT	4.6 tons
LENGTH (travelling)	8.6m
WIDTH (travelling)	2.1m
HEIGHT (travelling)	2.4m
ELEVATION/DEPRESSION	+87deg /-3deg
TRAVERSE (left/right)	360deg @40deg/sec
EFFECTIVE RANGE	Radar-directed 6,000m Optical sights 4,000m
EFFECTIVE ALTITUDE	Radar-directed 11,000-15,000ft Optical sights 8,400-12,600ft
EFFECTIVE DIRECT-FIRE RANGE AT GROUND TARGETS	500-1,000m
RATE OF FIRE	Cyclic 105-120 rpm Practical 70 rpm
EMPLACEMENT TIME	1-2 min
AMMUNITION TYPES	API, HE, HEI, APCT
PRIME MOVER	6 x 6 heavy truck
MODES OF OPERATION	Radar-directed and optical sights
ASSOCIATED RADARS	NATO code-name "Fire Can" fire control, A/B-band (100-500 MHz) PUAZO-6/60 range predictor NATO code-name "Flap Wheel" fire control/range predictor I-band (8-10 GHz) modified with LLTV for ECCM

ZSU-57-2
SELF-PROPELLED ANTI-AIRCRAFT ARTILLERY

CREW	6
LENGTH	6.2m
WIDTH	3.3m
HEIGHT	2.7m
WEIGHT	28.5 tons
MAXIMUM ROAD SPEED	48km/hr
RANGE WITH INTEGRAL FUEL	420km
MAXIMUM TRENCH WIDTH CROSSING	2.7m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.8m
DIAMETER OF MAIN GUNS	57mm
ROUNDS OF MAIN GUN AMMUNITION	320
TYPES OF AMMUNITION	HE-T, FRAG-T, APC-T
MAXIMUM ELEVATION/DEPRESSION OF GUNS	+85deg/-5deg
TURRET TRAVERSE	360deg
RATE OF FIRE (per gun)	Cyclic 105-120 rpm
	Practical 70 rpm
EFFECTIVE RANGE	4,000m
EFFECTIVE ALTITUDE	Gun elevation +45deg 2,835m
	Gun elevation +65deg 4,237m
RADAR	None. Exclusively aimed by visual means.

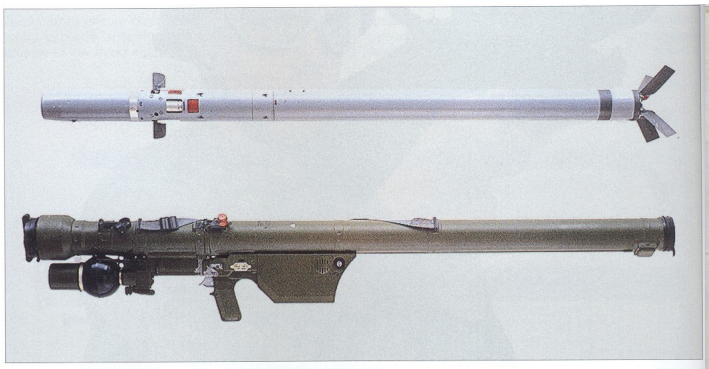
ZSU-23-4
SELF-PROPELLED ANTI-AIRCRAFT ARTILLERY

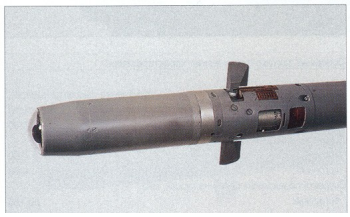
CREW	4
LENGTH	6.5m
WIDTH	2.9m
HEIGHT	3.8m
COMBAT WEIGHT	22 tons
MAXIMUM ROAD SPEED	45km/h
RANGE WITH INTEGRAL FUEL	450km
MAXIMUM TRENCH WIDTH CROSSING	2.8m
MAXIMUM VERTICAL OBSTACLE CROSSING	1.1m
DIAMETER OF MAIN GUN	23mm
ROUNDS OF MAIN GUN AMMUNITION	2,000
TYPES OF AMMUNITION	HEI,API Ratio of HEI:API = 3:1
MAXIMUM ELEVATION/DEPRESSION OF MAIN GUN	+85deg / -4deg
TURRET TRAVERSE	360deg at up to 45deg/sec
MAXIMUM RATE OF FIRE	Cyclic = 800 rpm Practical = 200 rpm
EFFECTIVE RANGE OF MAIN GUN	2,500m
RADAR	NATO "Gun Dish" J-band (10-20 GHz) Range 20km search 18km tracking

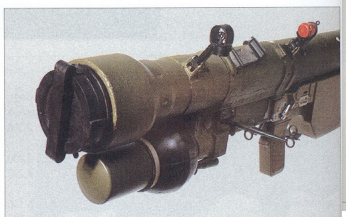
2S6M TUNGUSKA
SELF-PROPELLED AIR DEFENSE SYSTEM
(4 x 30mm cannon and 8 x SA-19 "Grison" SAMs)

CREW	4
LENGTH	7.9m
WIDTH	3.2m
HEIGHT	3.4m
WEIGHT	34.5 tons
MAXIMUM ROAD SPEED	65km/hr
RANGE WITH INTEGRAL FUEL	560km
MAXIMUM TRENCH WIDTH CROSSING	2.0m
MAXIMUM VERTICAL OBSTACLE CROSSING	1.0m
ROUNDS OF 30MM AMMUNITION	1900
TYPE OF AMMUNITION	HE-I, HE-T
MAXIMUM ELEVATION/DEPRESSION OF GUNS	+80deg/-6deg
MAXIMUM RATE OF FIRE OF GUNS	Cyclic 4,000-5,000 rpm
EFFECTIVE RANGE OF GUNS	4,000m (3,000m in altitude)
MODES OF OPERATION FOR GUNS	Automatic radar or optical backup
MISSILE GUIDANCE METHOD	Semi-automatic radar to command line of sight
MISSILE MODE OF OPERATION	Optical
MISSILE MAXIMUM EFFECTIVE RANGE	2,400-8,000m (15-3,500m in altitude)
RELOAD TIME (8 missiles)	10-15 min
MISSILE RATE OF FIRE	1 every 10 sec
COMBAT DEPLOYMENT TIME	2-4 min
REACTION TIME	10-15 sec
RADARS	NATO code-name "Hot Shot" surveillance E-band (2-3 GHz) 18km range tracking J-band (10-20 GHz) 13km range

SA-14 "GREMLIN"
MAN-PORTABLE SURFACE-TO-AIR MISSILE SYSTEM

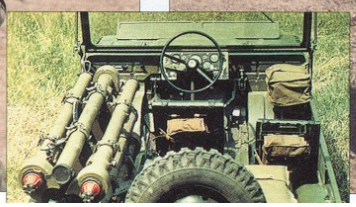






CREW		1 (shoulder-fired)
LENGTH		1.5m
DIAMETER		72.0mm
WEIGHT		34.0 lbs
GUIDANCE		3.5-5.0 micron wavelength Passive infra-red homing
SEEKER HEAD BEARING LIMITS		+ or – 40deg
MISSILE SPEED		470 m/sec
MAXIMUM EFFECTIVE RANGE	Approaching jets	2,000m
	Approaching props/helos	4,500m
	Receding jets	4,000m
	Receding props/helos	4,500m
MINIMUM EFFECTIVE RANGE	Approaching tgts	550m
	Receding tgts	850m
MAXIMUM EFFECTIVE TARGET ALTITUDE	Approaching jets	1,500m
	Approaching props/helos	3,000m
	Receding jets	1,800m
	Receding props/helos	3,000m
MINIMUM EFFECTIVE TARGET ALTITUDE		25m
PREPARATION TIME		15 sec
BATTERY COOLANT UNIT LIFE		30 sec

SA-16 "GIMLET"
MAN-PORTABLE SURFACE-TO-AIR MISSILE SYSTEM



CREW	1 (shoulder-fired)
LENGTH	1.7m
DIAMETER	72.0mm
WEIGHT	34.0 lbs
GUIDANCE	3.5-5.0 micron wavelength Passive infra-red homing
SEEKER HEAD BEARING LIMITS	+ or – 40deg
MISSILE SPEED	570 m/sec
MAXIMUM EFFECTIVE RANGE	Approaching jets 4,500m Approaching props/helos 4,500m Receding jets 5,200m Receding props/helos 5,200m
MINIMUM EFFECTIVE RANGE	Approaching tgts 550m Receding tgts 850m
MAXIMUM EFFECTIVE TARGET ALTITUDE	Approaching jets 6,000ft Approaching props/helos 9,000ft Receding jets 7,500ft Receding props/helos 10,500ft
MINIMUM EFFECTIVE TARGET ALTITUDE	40ft
PREPARATION TIME	13 sec
BATTERY COOLANT UNIT LIFE	30 sec

SA-9 "GASKIN"
SELF-PROPELLED ANTI-AIRCRAFT MISSILE SYSTEM

CREW	3
LENGTH	5.9m
WIDTH	2.4m
HEIGHT (travelling/firing)	2.3m/3.5m
COMBAT WEIGHT	7.5 tons
MAXIMUM ROAD SPEED	100km/h
RANGE WITH INTEGRAL FUEL	750km
MAXIMUM TRENCH WIDTH CROSSING	1.2m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.4m
ROUNDS OF MISSILE AMMUNITION	4 ready launch; 2 external re-load
MISSILE GUIDANCE	Passive Infra-red homing
MODES OF OPERATION	Optical
TURRET TRAVERSE	360deg
RELOAD TIME	5 min total for 4 missiles
MAXIMUM EFFECTIVE RANGE OF MISSILE	8,000m
MINIMUM EFFECTIVE RANGE OF MISSILE	560m
MAXIMUM EFFECTIVE ALTITUDE OF MISSILE	6,100m
MINIMUM EFFECTIVE ALTITUDE OF MISSILE	10m
RADARS	None. No transmitting radars exist on this weapon system. However, some BRDM-2 chassis have been fitted with 2-3 NATO code name "Flat Box-A" passive radar detection antennas.

SA-13 "GOPHER"
SELF-PROPELLED ANTI-AIRCRAFT MISSILE SYSTEM

CREW	3
LENGTH	6.6m
WIDTH	2.8m
HEIGHT (travelling/firing)	2.3m/3.8m
COMBAT WEIGHT	12.5 tons
MAXIMUM ROAD SPEED	61km/h
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.7m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.7m
ROUNDS OF MISSILE AMMUNITION	4 ready launch; 8 internal re-load
MISSILE GUIDANCE	Passive Infra-red homing
MODES OF OPERATION	Optical
RELOAD TIME	5-7 min total for 4 missiles
MAXIMUM EFFECTIVE RANGE OF MISSILE	8,000m
MINIMUM EFFECTIVE RANGE OF MISSILE	800m
MAXIMUM EFFECTIVE ALTITUDE OF MISSILE	3,500-5,000m
MINIMUM EFFECTIVE ALTITUDE OF MISSILE	10-25m
RADARS	Range-only radar set, NATO code-name "Snap Shot." 450-10,000m range. Also, although not active radiating radars, four NATO code-name "Flat Box-A" passive radar detection antennas are mounted on the hull of the MT-LB (similar to the ones on the SA-9 BRDM-2 chassis) for target bearing information only.

ROLAND 2
SELF-PROPELLED ANTI-AIRCRAFT MISSILE SYSTEM

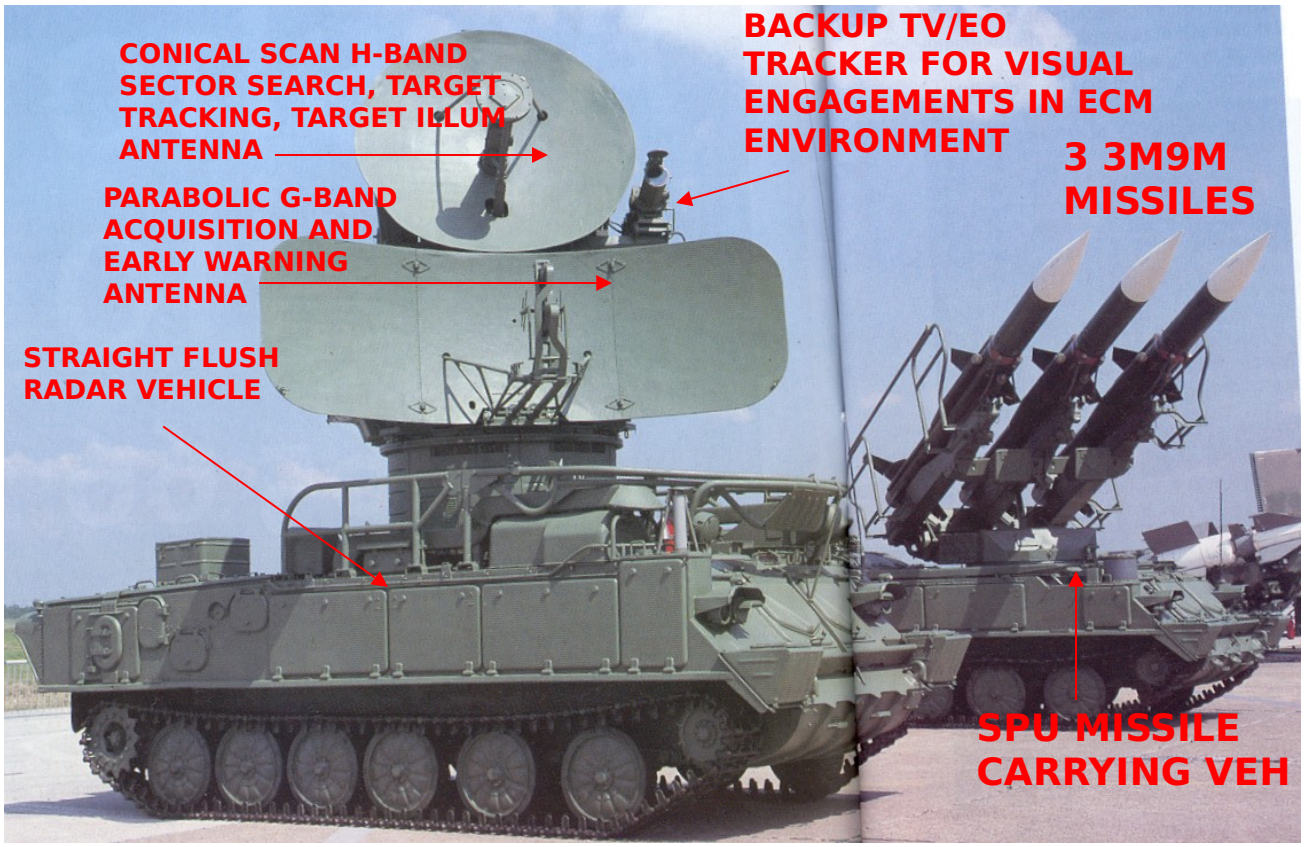
CREW	3
LENGTH	6.9m
WIDTH	3.2m
HEIGHT	4.2m
COMBAT WEIGHT	34 tons
MAXIMUM ROAD SPEED	70km/h
RANGE WITH INTEGRAL FUEL	520km
MAXIMUM TRENCH WIDTH CROSSING	2.5m
MAXIMUM VERTICAL OBSTACLE CROSSING	1.2m
ROUNDS OF MISSILE AMMUNITION	10
MISSILE GUIDANCE	Radio Command
MODES OF OPERATION	Optical and Radar
RELOAD TIME	6 sec
RATE OF FIRE	1 missile every 2-6 sec
TURRET TRAVERSE	360deg
MAXIMUM EFFECTIVE RANGE OF MISSILE	6,300m
MINIMUM EFFECTIVE RANGE OF MISSILE	500m
MAXIMUM EFFECTIVE ALTITUDE OF MISSILE	5,500m
MINIMUM EFFECTIVE ALTITUDE OF MISSILE	10m
RADARS	Search: D-band (1-2GHz) 1.5 – 16.5km range for 1.0 square meter target Tracking: J-band (10-20GHz)

SA-6a "GAINFUL" Mod 0
SELF-PROPELLED SURFACE-TO-AIR MISSILE SYSTEM

CREW (launch vehicle)	2
(total system with radars)	10
LENGTH (missile)	5.8m
DIAMETER	0.3m
MAXIMUM WING SPAN	1.2m
LAUNCH WEIGHT	1,300 lbs
GUIDANCE METHOD	Initial radio command with Terminal semi-active radar Homing
MODES OF OPERATION	Automatic radar detection Or back-up TV optical/visual Sighting
MAXIMUM SPEED	Mach 2.8
MAXIMUM EFFECTIVE RANGE	24 km
MINIMUM EFFECTIVE RANGE	3.7 km
MAXIMUM EFFECTIVE ALTITUDE	12 km
MINIMUM EFFECTIVE ALTITUDE	Radar mode 100m TV mode 50m
EMPLACEMENT TIME	15 min
REACTION TIME	15-30 sec
RATE OF FIRE	1 missile every 5-10 sec
RELOAD TIME	10-15 min
RADARS	NATO code-name "Flat Face" early warning/surveillance, C-band (810-850 MHz, 880-905 MHz), 250km range NATO code-name "Long Track", 2.6 GHz, 150km range, 30km altitude NATO code-name "Thin Skin" height-finding, 6-8 GHz, 240km range, 30km alt.

NATO code-name "Straight Flush" limited search, low-altitude detection,
Target tracking, missile command guidance, and secondary radar missile tracking,
H-band (5-6 GHz) 75km detection range; I-band (8 GHz) 28km tracking range

LAUNCH VEHICLE LENGTH	6.8m
LAUNCH VEHICLE WIDTH	3.2m
LAUNCH VEHICLE HEIGHT (with missiles)	3.4m
LAUNCH VEHICLE WEIGHT	14.5 tons
MAXIMUM ROAD SPEED	44km/hr
MAXIMUM RANGE	260km
VERTICAL OBSTACLE CROSSING	1.0m
TRENCH WIDTH CROSSING	2.5m


CONICAL SCAN H-BAND SECTOR SEARCH, TARGET TRACKING, TARGET ILLUM ANTENNA
BACKUP TV/EO TRACKER FOR VISUAL ENGAGEMENTS IN ECM ENVIRONMENT
3 3M9M MISSILES
PARABOLIC G-BAND ACQUISITION AND EARLY WARNING ANTENNA
STRAIGHT FLUSH RADAR VEHICLE
SPU MISSILE CARRYING VEH

SA-8b "GECKO"
SELF-PROPELLED SURFACE-TO-AIR MISSILE SYSTEM

CREW	5
LENGTH	9.1m
WIDTH	2.8m
HEIGHT	5.8m
MAXIMUM ROAD SPEED	60km/hr
RANGE	500km
VERTICAL OBSTACLE CROSSING	0.5m
TRENCH WIDTH CROSSING	1.2m
MISSILE GUIDANCE METHOD	Radio command
MODES OF OPERATION	Automatic radar-directed with Manual optical back-up via LLLTV devices
MAXIMUM EFFECTIVE RANGE	15,000m
MINIMUM EFFECTIVE RANGE	1,500m
MAXIMUM EFFECTIVE ALTITUDE	13,000m
MINIMUM EFFECTIVE ALTITUDE	10m
RELOAD TIME (6 missiles)	10-15min
RATE OF FIRE	Two missiles simultaneously Operating on two different Radio command frequencies
COMBAT DEPLOYMENT TIME	4 min
REACTION TIME	25 sec
RADARS	NATO code-name "Land Roll" consisting of rotating search radar in H-band (4-8GHz) 35km range. Tracking radar is J-band (13-15GHz) With 25km range. Two command guidance transmitters operating in I/J-band (8-20GHz).

MiG-21MF FISHBED-J
MULTI-ROLE FIGHTER

CREW	1
LENGTH	13.3m/43ft 7in
WING SPAN	7.2m/23ft 7in
HEIGHT	4.0m/14ft 9in
NORMAL TAKEOFF WEIGHT	8,950kg/19,730lbs
MAXIMUM LEVEL SPEED (AT ALTITUDE)	Mach 2.05 (1,175knots/2,175km/hr/1,353mph)
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 1.06 (701knots/1,300km/hr/807mph)
TAKEOFF RUN (WITH AFTERBURNING)	800m/2,625ft
LANDING RUN (WITH BRAKE-CHUTE)	550m/1,805ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	593 nautical miles/1,100km/683 miles
RANGE (WITH AUXILIARY TANKS)	971 nautical miles/1,800km/1,118 miles

COMBAT RADIUS (hi-lo-hi mission profile) WITH FOUR 250kg BOMBS AND INTERNAL FUEL
200 nautical miles/370km/230miles
WITH TWO 250kg BOMBS AND TWO DROP TANKS
400 nautical miles/740km/460miles

ARMAMENT — One internal twin-barrel 23mm GSh-23 cannon with 200 rounds. Four Wing pylons for weapons or drop tanks. Weapons include two R-13M Air-to-air infra-red guided missiles (NATO AA-2 "Atoll") and two SARH AA-2C "Advanced Atoll" missiles. For air-to-ground missions, 2-4 UV-16-57 rocket pods, or two 500kg or 250kg general purpose bombs can Be carried.

RADAR — RP-22 multi-mode fire control/search/track radar (NATO code-name "Jay Bird"). J-band (12.8 – 13.2 GHz) with search range of 15 nautical miles/ 29km/18miles, tracking range of 10 nautical miles/19km/12miles.

MiG-23MS FLOGGER-E VARIABLE GEOMETRY AIR COMBAT FIGHTER

CREW	1
LENGTH	16.7m/54ft 10in
WING SPAN -- FORWARD/(SWEPT)	13.9m/45ft 10in/(7.8m/25ft 6in)
HEIGHT	4.82m/15ft 9in
NORMAL TAKEOFF WEIGHT	15,240kg/33,528lbs
MAXIMUM LEVEL SPEED (AT ALTITUDE)	Mach 2.3 (1,320 knots/2,445km/hr/1,520mph)
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 1.2 (810 knots/1,500km/hr/932mph)
TAKEOFF RUN (WITH AFTERBURNING)	500m/1,640ft
LANDING RUN (WITH BRAKE-CHUTE)	750m/2,460ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	810 nautical miles/1,500km/932 miles
RANGE (WITH AUXILIARY TANKS)	1,375 nautical miles/2,550km/1,584 miles
ARMAMENT	One internal twin-barrel 23mm GSh-23 cannon with 200 rounds. Air-to-air missiles include 4-6 R-13M (AA-2 "Atoll") infra-red homing Missiles with a range of 8 nautical miles.
RADAR	RP-22 multi-mode fire control/search/track radar (NATO code-name "Jay Bird"). J-band (12.8 – 13.2 GHz) with search range of 15 nautical miles/ 29km/18miles, tracking range of 10 nautical miles/19km/12miles.

MiG-29 FULCRUM-A
ALL-WEATHER COUNTER-AIR TACTICAL FIGHTER

CREW	1
LENGTH	17.3m/56ft 10in
WING SPAN	11.4m/37ft 3in
HEIGHT	4.7m/15ft 6in
NORMAL TAKEOFF WEIGHT	15,240kg/33,600lb
MAXIMUM LEVEL SPEED (AT ALTITUDE)	Mach 2.3 (1,320 knots/2,445km/hr/1,520mph)
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 1.2 (810 knots/1,500km/hr/932mph)
TAKEOFF RUN (WITH AFTERBURNING)	250m/820ft
LANDING RUN (WITH BRAKE-CHUTE)	650m/2,135ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	810 nautical miles/1,500km/932 miles
RANGE (WITH UNDERBELLY AUXILIARY TANK)	1,133 nautical miles/2,100km/1,305 miles
ARMAMENT	Six close-range R-60T or R-60MK (NATO AA-8 "Aphid") infra-red Air-to-air missiles, or four R-60TMK and two medium-range radar-Guided R-27R1 (AA-10A "Alamo"). Alternate air combat weapons Include R-73A or R-73E (AA-11 "Archer") close range infra-red Missiles. Able to carry eight FAB-250 general purpose bombs, or Four FAB-500. Other air-to-ground ordnance includes submunitions Dispensers, napalm, and rocket packs. One 30mm GSh-301 gun in Port wingroot leading-edge extension, with 150 rounds. Range of AA-8 is 5 miles; AA-10A is 50 miles; AA-11 is 19 miles.
RADAR	RLS RP-29 (N019 Sapfir-29) coherent pulse-Doppler look-down/ Shoot-down engagement radar (NATO code-name "Slot Back"), Able to track 10 targets simultaneously; search range 54 nautical Miles/100km/62 miles; tracking range 38 nautical miles/70km/ 43 miles; target tracking limits 60 deg up, 38 deg down, 67 deg each side from aircraft centerline, collimated with laser ranger.

MiG-25P/PD FOXBAT-E
INTERCEPTOR FIGHTER

CREW	1
LENGTH	23..8m/78ft 1in
WING SPAN	13.9m/45ft 9in
HEIGHT	6.1m/20ft 1in
NORMAL TAKEOFF WEIGHT	36,000kg/79,365lbs
MAXIMUM LEVEL SPEED (AT ALTITUDE)	Mach 2.83 (1,606knots/2,976km/hr/1,850mph)
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 0.85 (573knots/1,062km/hr/660mph)
TAKEOFF RUN (WITH AFTERBURNING)	1,380m/4,525ft
LANDING RUN (WITH BRAKE-CHUTE)	2,180m/7,150ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	863 nautical miles/1,600km/994miles
NORMAL OPERATIONAL RADIUS	610 nautical miles/1,130km/700miles
ARMAMENT	Air-to-air missiles on four underwing pylons. These usually comprise IR- and SARH-guided R-40 (NATO code-name AA-6 "Acrid") with a Range of 43 nautical miles. Alternatively, four R-60 (AA-8 "Aphid") With a range of 4 nautical miles can be carried for close-in fights. These missiles are IR-guided.
RADAR	Main fire control radar is NATO code-name "Fox Fire" with a range of 45 nautical miles/85km/52miles.

MIRAGE F1E
MULTI-ROLE AIR SUPERIORITY AND GROUND ATTACK FIGHTER

CREW	1
LENGTH	15.2m/49ft 11in
WING SPAN	8.4m/27ft 6in
HEIGHT	4.5m/14ft 9in
NORMAL TAKEOFF WEIGHT	13,000kg/28,600lbs
MAXIMUM LEVEL SPEED (AT ALTITUDE)	Mach 2.3 (1,320knots/2,445km/hr/1,520mph)
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 1.2 (810 knots/1,500km/hr/932mph)
TAKEOFF RUN (WITH AFTERBURNING)	600m/1,970ft
LANDING RUN (WITH BRAKE-CHUTE)	670m/2,200ft
COMBAT RADIUS (hi-lo-hi mission profile at Mach 0.75/0.88, with fourteen 250kg bombs And maximum internal fuel)	230 nautical miles/425km/265miles
(lo-lo mission profile with one Exocet anti-ship missile and two external tanks)	378 nautical miles/700km/435miles
(combat air patrol endurance, with two Super 530 SARH air-to-air missiles [range of 15-20 nautical miles] and underbelly tank)	

RADAR — Thompson-CSF Cyrano IV monopulse multi-mode fire control I/J-band (8-20GHz) which performs air-to-air search, automatic tracking, ground mapping, contour mapping, and terrain avoidance functions. Detection ranges include 68, 40, or 17 miles. Reconnaissance versions include carriage of the 680kg Dassault HAROLD recon pod on the centerline pylon. This pod contains a long-range oblique camera with a 1,700mm lens, giving 4 square meter/43 sq ft object resolution at 100km/60miles.

Su-24MK FENCER-D
STRIKE/INTERDICTION AIRCRAFT

CREW	2
NORMAL TAKEOFF WEIGHT	35,910kg/79,168lbs

Ceiling: 54,135 ft (16,500 m)
Maximum speed at sea level with armament: 715 kts (823 mph)
Radius of action, at 650 ft (200 m) altitude, no drop tanks: 221 N
Radius of action, at 650 ft (200 m) altitude, with drop tanks: 302

Weapons ranges:

Kh-25ML (AS-10 Karen)	5.4nm/10km
Kh-25MP (AS-12 Kegler)	32nm/60km
Kh-29TD (AS-14 Kedge)	6.5nm/12km
Kh-29L (AS-14 Kedge)	4.3nm/8km
Kh-31P (AS-17 Krypton)	81nm/150km
Kh-58U/E (AS-11 Kilter)	65nm/120km
Kh-59M (AS-18 Kazoo)	62nm/115km

Su-25 FROGFOOT-A
CLOSE SUPPORT AIRCRAFT

CREW	1
LENGTH	15.5m/50ft 11in
WING SPAN	14.4m/47ft 1in
HEIGHT	4.8m/15ft 9in
NORMAL TAKEOFF WEIGHT	14,000kg/32,187lbs
MAXIMUM ATTACK SPEED (AIRBRAKES OPEN)	372 knots/690km/hr/428mph
MAXIMUM LEVEL SPEED (SEA LEVEL)	Mach 0.8 (526 knots/975km/hr/606mph)
TAKEOFF RUN	600-1,200m/1,970-3,935ft
LANDING RUN	400-600m/1,312-1,970ft
RANGE (WITH 9,700lbs OF WEAPONS AND TWO EXTERNAL TANKS, AT SEA LEVEL)	405 nautical miles/750km/466miles
(WITH 9,700lbs OF WEAPONS AND TWO EXTERNAL TANKS, AT ALTITUDE)	675 nautical miles/1,250km/776miles
ARMAMENT	One twin-barrel AO-17A 30mm gun with a rate of fire of 3,000 Rds/min in bottom of front port fuselage, with 250 rounds. Air-to-ground weapons include UB-32 rocket pods (32 x 57mm), B-8M1 rocket pods (20 x 80mm), 240mm S-24 or 330mm S-25 Guided rockets, Kh-23 (NATO AS-7 "Kerry"), Kh-25 (AS-10 "Karen"), or Kh-29 (AS-14 "Kedge") air-to-surface guided missiles. General purpose and cluster bombs can also be carried. Range of AS-7 is 7 miles; AS-10 is 13 miles; AS-14 is 7 miles.
RADAR	None. Laser rangefinder and target designator are located under Flat sloping window in nose. Strike camera is located in top of Nosecone.

Mi-24D HIND-D
GUNSHIP HELICOPTER

CREW	2+8 (Pilot/Co-pilot + 8 personnel in main cabin)
LENGTH (FUSELAGE ONLY)	17.5m/57ft 5in
MAIN ROTOR DIAMETER	17.3m/56ft 9in
HEIGHT	6.4m/21ft 4in
NORMAL TAKEOFF WEIGHT	12,000kg/26,455lbs
MAXIMUM LEVEL SPEED (SEA LEVEL)	172 knots/320km/hr/199mph
SERVICE CEILING	4,500m/14,750ft
HOVERING CEILING OUT OF GROUND EFFECT (OGE)	2,200m/7,200ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	243 nautical miles/450km/280miles
RANGE (WITH AUXILIARY TANKS)	431 nautical miles/800km/497miles
COMBAT RADIUS WITH MAXIMUM MILITARY LOAD	86 nautical miles/160km/99miles
WITH TWO EXTERNAL FUEL TANKS	121 nautical miles/224km/139miles

ARMAMENT One remotely controlled four-barrel Gatling-type 12.7mm machine gun In undernose turret, slaved to undernose sighting system. Rails for four NATO code-name AT-2c "Swatter" anti-tank missiles, radio-command Guided by small pod on port side under nose. Rails are located under Endplate pylons at stub wingtips. Four underwing pylons for UV-32-57 Rocket pods. Range of AT-2c "Swatter" is 2.5 nautical miles.

Mi-8T HIP-C
TRANSPORT UTILITY HELICOPTER

CREW	2+24 (Pilot/Co-pilot + 24 troops in "tip-up" seats)
LENGTH (FUSELAGE ONLY)	18.2m/59ft 7in
MAIN ROTOR DIAMETER	21.3m/69ft 10in
HEIGHT	5.6m/18ft 6in
NORMAL TAKEOFF WEIGHT	11,100kg/24,740lbs
MAXIMUM LEVEL SPEED (SEA LEVEL)	135knots/250km/hr/155mph
SERVICE CEILING	4,500m/14,760ft
HOVERING CEILING IN GROUND EFFECT (IGE)	1,900m/6,235ft
HOVERING CEILING OUT OF GROUND EFFECT (OGE)	800m/2,625ft
MAXIMUM INTERNAL PAYLOAD	4,000kg/8,820lbs
MAXIMUM EXTERNAL SLUNG PAYLOAD	3,000kg/6,614lbs
RANGE (WITH MAXIMUM INTERNAL FUEL)	251 nautical miles/465km/289miles
RANGE (WITH AUXILIARY TANKS)	647 nautical miles/1,200km/745miles
ARMAMENT	Hip-Cs can be fitted with outriggers carrying four pylons (two per side), Each of which can carry a UB-16-57 rocket pod (containing 16 S-5 Unguided 57mm rocket projectiles). Many Hip-Cs have had their Outriggers strengthened to carry the larger UB-32-57 pod, or bombs of Up to 250 kg/550lbs.

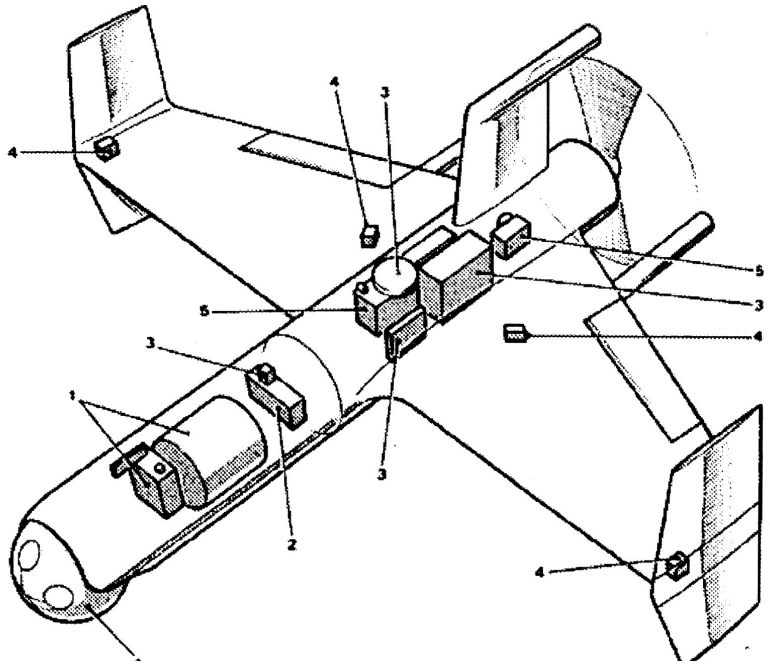
Antonov An-2 Colt

•Crew:..... 2 pilots
•Length:..... 12,74 m. 41ft. 9.5in.
•Height:..... 4,20 m. 13ft. 1.5in.
•Wing span:..... 18,80 m. 59ft. 7.75in.(Upper), 46ft. 8.5i
•Type:..... utility biplane
•Max take off weight:..... 5.500 kg
•Max payload:..... 12 passengers or 1.500 kg
•Max speed at 5,700 ft :..... 253 km/h 160 mph
•Max range:..... 900 km 560 miles with 1,100-pound pay
Normal cruising speed:..... 115 mph (185 km/h)
•Service ceiling:..... n/a
•Powerplant:..... 1 Shvetzov ASh-62IR rated at 1014 hp
•Armament:..... None

An-12BP CUB
MEDIUM RANGE MILITARY TRANSPORT

CREW	6 + 90 troops or 60 paratroops
LENGTH	33.1m/108ft 7in
WING SPAN	38.0m/124ft 8in
HEIGHT	10.5m/34ft 6in
NORMAL TAKEOFF WEIGHT	55,100kg/121,475lbs
MAXIMUM CARGO PAYLOAD	20,000kg/44,090lbs
NORMAL CRUISING SPEED	361knots/670km/hr/416mph
TAKEOFF RUN	700m/2,300ft
LANDING RUN	500m/1,640ft
RANGE (WITH MAXIMUM INTERNAL FUEL)	3,075 nautical miles/5,700km/3,540miles
NORMAL OPERATIONAL RANGE (WITH 44,090lb PAYLOAD)	1,942 nautical miles/3,600km/2,236miles
ARMAMENT	Two 23mm NR-23 cannons in rear tail turret

MARULA
UNMANNED AERIAL VEHICLE



LENGTH	2.1m
HEIGHT	0.7m
WING SPAN	2.2m
MAXIMUM PAYLOAD	77lbs
MAXIMUM LAUNCHING WEIGHT	298lbs
CRUISING SPEED	151 knots (280km/hr; 174mph)
LOITER SPEED	97 knots (180km/hr; 112mph)
TYPICAL OPERATING ALTITUDE	3,000m (9,840ft)
CEILING	4,000m (13,120ft)
OPERATIONAL RADIUS	54 nautical miles (100km; 62 miles)
MAXIMUM RANGE	>324 nautical miles (600km; 373 miles)
MAXIMUM ENDURANCE	> 5 hours

NOTES: Mid-wing UAV is powered by a rear-mounted engine with a pusher propeller. It is of all composite materials construction. Missions can be fully pre-programmed or re-programmed in flight. Control is by radio uplink, data transmission by radio and video downlink. Other onboard avionics include a strapdown INS and GPS satellite navigation receiver, interfaced with the GCS for real-time mission planning and data processing.

SNAR-10
BATTLEFIELD SURVEILLANCE
RADAR

CREW	4-5
LENGTH	6.4m
WIDTH	2.9m
HEIGHT (antenna in traveling fold-down position)	2.9m
(antenna erected in search mode)	3.8m
COMBAT WEIGHT	12.5 tons
MAXIMUM ROAD SPEED	60km/hr
RANGE WITH INTEGRAL FUEL	500km
MAXIMUM TRENCH WIDTH CROSSING	2.4m
MAXIMUM VERTICAL OBSTACLE CROSSING	0.6m

NOTES: The SNAR-10 is a battlefield surveillance radar, with a supplemental limited artillery locating capability. The radar is NATO code-named Big Fred. The chassis is the basic MT-LB. The radar is designed to locate stationary or moving targets at the forward edge of the battle area. It is normally deployed close to infantry or artillery observation posts. The SNAR-10 can direct fire onto targets which they have located. Artillery impact patterns can be recorded and registration fire reported. The SNAR-10 can also detect targets at sea, as well as low, slow-flying helicopters and UAVs. The radar's operating frequency range is K-band (34.55 – 35.25GHz). Without MTI, it can detect 100mm shell impacts at 10km; vehicles at 16km; and ships at 30km. With MTI, it can detect vehicles at 10km.

FARA-1 PORTABLE GROUP TARGET LOCATING AND WEAPON AIMING RADAR

Designed to locate moving ground targets, aim mounted automatic weapons (machine guns, grenade launchers) at targets under zero visibility, monitor land areas in the automatic mode, and produce a sound or light warning signal if an intruder is detected.

Fara-1 is a continuous-wave Doppler radar. It features a solid-state microwave transceiver, slotted waveguide antenna, and a remote control console. It can be installed on a tripod, armored or other vehicles, tree trunks, or in buildings.

The radar automatically detects moving targets within a preset scan sector, identifies targets by analyzing the nature of a sound signal and produces information via a standard interface.

Basic Characteristics

Operating frequency band	J
Detection range, km:	
man	2.5
materiel	5
Target location accuracy:	
in range, m	20
in azimuth, deg	0.9
Weight, kg	16

CREDO-M1 PORTABLE MOVING TARGET LOCATING RADAR

Designed to locate moving ground and waterborne targets, as well as monitor state borders, vast land areas and separate installations.

Credo-M1 is a coherent pulse Doppler radar. It automatically detects moving targets, determines their coordinates, encodes targets by different colors, presents threat environment on the terrain map background, produces tracks of moving targets, tracks targets automatically while scanning, measures target coordinates and velocity vector, stores and records radar data, and provides interface with data transmission devices.

Basic Characteristics

Operating frequency band	Ku
Detection range, km:	
man	8.5
materiel	up to 20
Target location accuracy:	
in range, m	25
in azimuth, deg	0.3
Type of display	color, LCD
Weight, kg	50

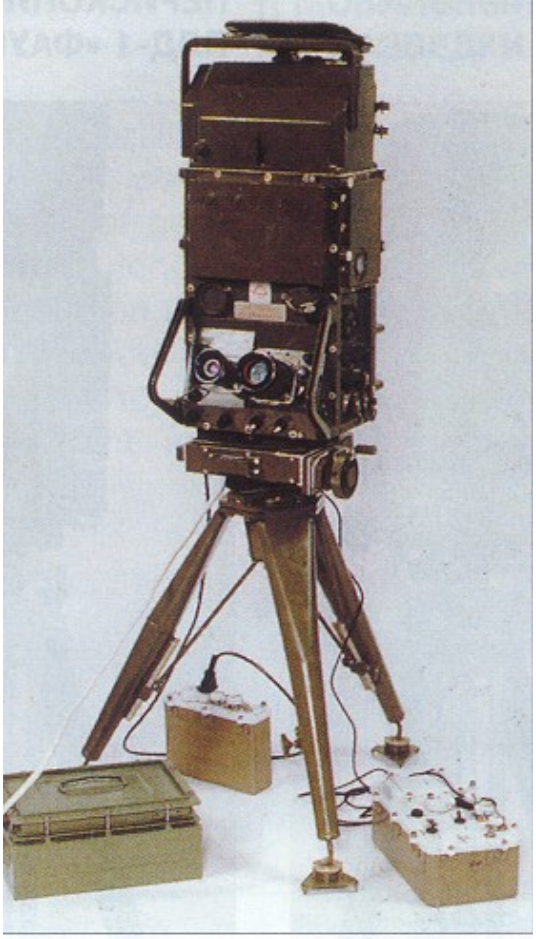
1D22 (LTsD-2) LASER RANGER DESIGNATOR

Intended to support gun fire with ordinary and semiactive laser-guided artillery ammunition.

It ensures:

- optical surveillance of the terrain;
- measurement of spherical coordinates (range, grid azimuth and angle of site) of targets and bursts;
- target designation, i.e., illumination of targets during guidance of laser-designated artillery projectiles.

The data on spherical target coordinates can be transferred to an external computer.



Basic Characteristics

Target illumination range, m	300 - 7,000
Range measurement limits, m	70 - 39,995
Type of azimuth mechanism	electronic
Measurement limits, mil:	
horizontal angles	±30
vertical angles	±4
Emitted wave length, u	1.064
Emitted pulse energy, J	0.045
Laser emission pulse repetition rate, Hz	10, 20, 30
Day channel:	
magnifying power (selectable)	15 or 6
field of view (selectable), deg	4 or 10
Cycle of operations	6 cycles of illumination to support fire of 6-gun battery at high rate
Operating temperature range, °C	±50
Max weight of set, kg	45